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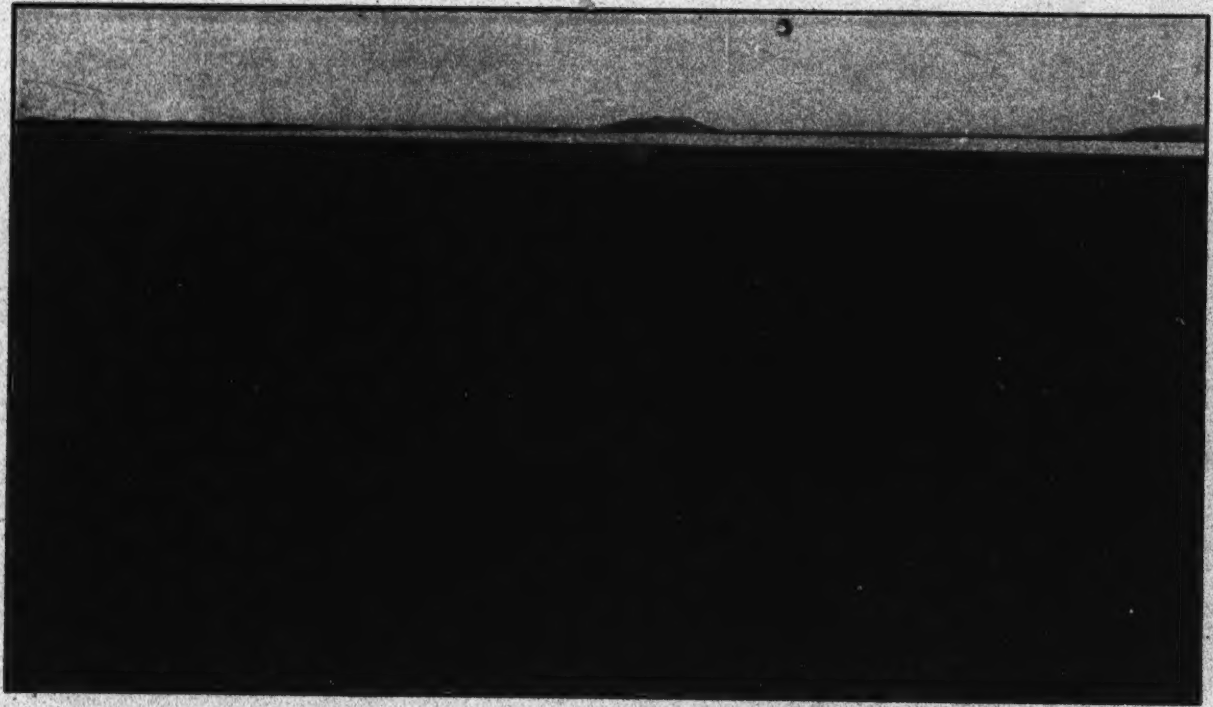

FRONTISPIECE. Untrodden Desert and Alluring Mirage Constituted the Site of the City of Imperial until 1900

THE STORY OF THE FIRST DECADE

In Imperial Valley, California

BY
EDGAR F. HOWE and WILBUR JAY HALL

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By
Edgar F. Howe and Wilbur Jay Hall

STORY OF THE STORY

For several years it had been my dream some day to write the romantic history of Imperial Valley, and when the time was drawing near for celebration of the tenth year of the beginning of reclamation, I said to myself: "Now I will write 'The Story of the First Decade.'"

But in the print shop man proposes and the necessity of current events disposes. The inability to find time for the work led me to call in as an "associate" in the writing of the story Mr. Wilbur J. Hall and events have so shaped themselves against my purpose that the finished book is primarily the work of the "associate." In looking over these pages, now that the work is concluded, I feel that I can congratulate the public that fate decreed that the important task of recording this history was rescued from my hands and placed in those of an abler man.

This is the time for the story to be told. The pioneer period is drawing to a close. The ten years of struggle has laid the foundation for an addition to Southern California such as it has never before received.

Yet the structural labor is but begun. We can see today more clearly the possibility of building a new Egypt. We can see the possible unification of Imperial and Coachella Valleys in a continuous garden from the Mexican line to the mountains which cleave Southern California into two parts.

The desert has been called the land that God forgot. It is not true. It is the land that man, in the building of Southern California, forgot, the land whose products are essential to the rounding out of a complete self-sustaining unity.

It is Imperial Valley which is making a city of a million inhabitants of Los Angeles, and this story of the achievements of the pioneers of Imperial Valley will some day be recognized as the narrative of one of the most important stages in the construction of an empire in the Southwest, the glory of which the keenest visioned of us all can now but dimly see.

EDGAR F. HOWE.

CHAPTER I

VALLEY BEFORE SETTLEMENT

PART ONE

When Columbus, standing in the court of Ferdinand and Isabella of Spain, pleaded for money with which to outfit ships for a voyage of discovery and conquest, there dwelt in the southwestern part of that country he was later instrumental in opening to the old world, a strange people of swarthy skins, in settlements even then very ancient. This people was divided into several tribes: some lived nomadic lives, carrying their tents from place to place, calling themselves Navajoes; some dwelt in burrows in the cliffs and raised corn or hunted and fished on the plains below—a tribe known as Walapais in one place, as Hopis in another; a third group peopled the rich flats on the bank of a great, muddy river that frequently overflowed, enriching and irrigating the land—these were the Yumas.

For many generations these aborigines lived their simple, savage lives, watching the days come and go without interest or speculation. Occasionally, though seldom, indeed, one of their number came to wonder about the countries surrounding their own and wandered off to learn what he could. Some of these did not come back—a few did, bringing tales of strange mountains full of ore, of plains where wild things roamed, or of deserts unpeopled, desolate and forbidding. But at some time very long ago some of these adventurous spirits returned to the Yumas from the west with report of a great inland lake, full of fish, surrounded by rich land, and thither a company of bold spirits went, with their few belongings, to live. Years later a few of these with many of their children returned, saying that the lake had turned too salt to use, that the fish were dying and that the country was baking under a cruel sun that drove the rain clouds away and made the land desolate.

Generations passed, Columbus' mission was performed and the intrepid old Genoese died with a broken heart, white people filled the eastern part of the country, and rumors reached the far-away southwest—the country of the Yumas and the Navajoes—that a dominant race had come to crowd all Indians into the sea. Their first evidence of this was when the missionary fathers crowded across their country to the Pacific, and one of these expeditions ended in a massacre, the father and his followers never having been heard of again. One day it was reported that the boats of the whites were coming up the Colorado—that muddy river on which the Yumas depended for both food and drink—and the frightened tribesmen laid plans for defense. But the invaders never reached the settlements, although they sailed away a few days later believing that they had discovered the mouth of the Colorado river and had sailed up its waters many miles.

The leader of this expedition was Lieutenant H. Hardy, of the Royal Navy of Great Britain, who was exploring the western coasts in a search for some river up which he could sail, as was then thought, well into the great western part of the new continent. This was about the year 1800. Lieutenant Hardy ascended the Gulf of California and made his way with great difficulty past low islands and over shallows and sand bars into the mouth of a sluggish stream. Although puzzled at the narrowness of the river he pushed on to a small lake where he moored ship and went ashore to reconnoitre. From the top of a neighboring butte that rose 300 feet into the air almost from the shores of the lake, he looked north on to a desert stretching as far as the eye could reach—bald and desolate under the straight rays of the sun. The river on which he hoped to sail spread out to the east over great marshes and he saw at once that it would be hopeless to go farther into this slough. Regretfully he turned back, reporting to his superiors across the sea that the Colorado was non-navigable.

Whether Lietutenant Hardy, who probably looked on the Colorado desert first of all Englishmen, was really in the Colorado or not is a debatable point. He was not in that stream which—up to a few months before this writing—was the Colorado, but on the other hand was in a stream running from Volcano lake to the Gulf of California and which, because he called it the Colorado in his reports and maps, has since been called Hardy's Colorado, or the Hardy. Geographers have thought for almost one hundred years that Hardy was mistaken, but it is not unlikely that he was not and that the reason he could not find another and larger stream was that the Colorado was then, as it is at the present writing, flowing west across the marshes into Rio Paradones, thence into Volcano lake and so to the sea by the Hardy. We are inclined to believe that the laugh, instead of being on Hardy, was on the later geographers, for Hardy climbed Cerro Prieto and from there would have been able to see the real Colorado had it then been flowing to the gulf in the channel it used for many years prior to the spring of 1910.

This Colorado river Lieutenant Hardy desired to explore was worthy of his best efforts. It is one of the long rivers of the world, although robbed of some honors in this regard by the fact that its upper tributaries bear other names. An excellent brief description of the drainage basin of the Colorado is found in Water-Supply paper, Number 211, issued by the United States Geological survey and because this is pointed and accurate it is given. The report was prepared in 1906 by R. L. Meeker and H. S. Reed and concerning the great stream says: "The Colorado River is formed in the southeastern part of Utah by the junction of Grand and Green rivers. The Green is larger than the Grand and is the upward continuation of the Colorado. Including the Green, the entire length of the Colorado is about 2,000 miles. The region drained is about 800 miles long, varies in width from 300 to 500 miles, and contains about 300,000 square miles. It comprises the southwestern part of Wyoming, the western part of Colorado, the eastern half of Utah, practically all of Arizona and small portions of California, Nevada, New Mexico and Old Mexico. Most of this area is arid, the mean annual rainfall being about 8½ inches. The streams receive their supply from the melting snows on the high mountains of Wyoming, Utah and Colorado.

"There are two distinct portions of the basin of the Colorado. The lower third is but little above the level of the sea, though here and there ranges of mountains rise to elevations of 2,000 to 6,000 feet. This part of the valley is bounded on the north by a line of cliffs which present a bold, often vertical, step of hundreds or thousands of feet to the table land above. The upper two-thirds of the basin stands from 4,000 to 8,000 feet above sea level, and is bordered on the east, west, and north by ranges of snow-clad mountains which attain altitudes varying from 8,000 to 14,000 feet above sea level. Through this plateau the Colorado and its tributaries have cut narrow gorges or canyons through which they flow at almost inaccessible depths. At points where lateral streams enter, the canyons are broken by narrow transverse valleys, diversified by bordering willows, clumps of box elder, and small groves of cottonwood. The whole upper basin of the Colorado is traversed by a labyrinth of these canyons, most of which are dry during the greater portion of the year, and carry water only during the melting of the snow and the brief period of the autumnal and spring rains. . . . . .

Stations on the old Butterfield Stage Route across the Desert Remained

"Green River heads on the west slope of the Wind river mountains in western Wyoming, its ultimate source being a number of small lakes fed by the glaciers and immense snow deposits always to be found on Fremont and neighboring peaks. For perhaps 25 miles the river flows northwestward through the mountains. It then turns abruptly and runs in a general southerly direction across western Wyoming into Utah. A few miles below the Wyoming-Utah boundary another sharp turn carries the river eastward along the Uinta Mountains, through which it breaks near the east end of the range. It then flows southward in Colorado for about 25 miles, turns back into Utah, and continues to flow in a southwesterly and southerly direction until it unites with the Grand to form the Colorado. Its length, measured roughly along the course, is approximately 425 miles."

Rising on the western slopes of the Rocky mountains among the high peaks of the Front Range, the Grand river (with its tributaries) drains "an area comprising approximately 26,180 square miles . . . . On the east and southeast the basin is limited by the high ranges of the Continental Divide which separate it from the basins of the Platte and Arkansas rivers; on the north by the White river and Book Cliffs plateaus; on the west by the canyon district of the Colorado."

It is necessary, for the purposes of our story, to consider also another tributarial basin—that of the Gila and Salt Rivers in the southwest. Of these the paper says: "Gila river rises in western and southwestern New Mexico, receiving its waters from mountains having an elevation of from 7,000 to 8,000 feet. At the point where it crosses into Arizona it has an elevation of 6,000 feet. From this place it flows between mountain ranges, falling rapidly, until at Florence, 180 miles away, it is about 1,500 feet above sea level. At a point about 16 miles above Florence the river emerges upon the plain through which it winds for about 75 miles before receiving the waters of its principal tributary, the Salt. . . . Salt River, though considered a tributary of the Gila, is in fact, larger both in catchment area and in discharge. It receives the drainage from central Arizona, its principal tributary, the Verde, flowing southeasterly and south from the mountains and table-lands south of Colorado river. The Verde valley is situated in Yavapai county, Arizona, on the head waters of the stream, and extends from a canyon above Camp Verde to a point about 10 miles below the fort. About a mile above the junction of the Verde and 30 miles above Phoenix the Salt enters upon the plains of the Gila Valley."

Here then are the districts from which flow the waters that go to make up that powerful, sluggish, and erratic river. Here are described those regions from which the Colorado has annually carried off drainage waters, with their dissolved atoms of earth, for centuries. Here are named the canons that have been formed by the eating away of their substance by this eroding stream. When one considers that all the earth removed from such gorges as the canons of the Colorado, Green, Salt and Gila, instead of being swept away and lost, has a definite destination, then one begins to realize the enormous importance that the river must have played in the course of its ages of work, in the making of geography. Where did the silt carried away through the medium of these streams find a resting place? Where today is the mass of earth, rock, disintegrated granite, the vegetable matter, the salt, the mineral that has for ages been drawn into its torrential bosom at flood time by the voracious Colorado and swept downward toward the ocean?

Organic matter in solution or in suspension is not deposited by water moving rapidly. In other words silt is not cast up by a stream the actions of which are, in the very nature of things, erosive. It remains only where there is a pause in the hurry of the waters and it may settle gradually to the bottom or float in infinitely small particles to some quiet bank where there is a scarcely perceptible flow. The silt swept down stream by the Colorado must have been carried until it reached a point where the river, spreading out in a shallow channel and flowing slowly and evenly, became a settling basin for its cargo.

This point was not reached by the Colorado until its waters poured into the sea—into that arm of the Pacific known as the Gulf of California. And how the river here discharged its burden is an absorbing and marvelous story—the story of the formation of the Colorado desert, now reclaimed and known to all who read this account as the Imperial Valley, daughter of the Colorado river, since she give it birth and nourishes it today.

Concerning the geology of this section of the Southwest very little data has been compiled. As early as 1853 Prof. William P. Blake, accompanying a military expedition sent out to report on the feasibility of railroad construction from the Mississippi river to the Pacific Ocean, passed through the upper end of the desert and, in an exhaustive and interesting resume of his findings,* threw some light on the geology of this part of arid America. A later investigator, Walter C. Mendenhall, an expert in the United States Geological Survey, devotes several pages of his report—"Ground Waters of the Indio Region" (U. S. Geol. Survey Water-supply Paper No. 225) to a discussion of the formation of the Salton Sink. After a description of the surrounding mountains he turns to the desert with the following conclusions concerning the latter:

"It may be said . . . as a generalization, that it belongs to a type which physiographers describe as constructional, that is, it represents an area which has been depressed as a result of crustal movement, as contrasted with valleys due to erosion.

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*Sen. Ex. Doc. No. 78, XXXIIId Cong., 2d Sess., Vol. V, Part II.

There are many proofs of this. The fact that its rock floor (bed-rock) is below tide, even in those parts north of the Gulf where the actual surface is well above sea-level, proves that a part, at least, of its position is due to actual subsidence of a block of the earth's crust, because erosive action cannot extend below the ultimate base-level, which is usually sea-level."

The writer finds further proof in the discovery of a marked fault line in the mountains, showing conclusively, he thinks, that the valley below dropped away at one time. He says: "The Santa Rosa ridge itself is a particularly suggestive mountain mass. It has a steep, abrupt southwest face, with short drainage lines, and a relatively smooth and sloping northeast face, with long drainage lines. On its northeast face there are many large surfaces, comparatively unscarred by modern arroyos, which at once suggests remnants of an old eroded surface. In short it has the typographic characteristics of a faulted block tilted toward the northeast and plunging into the desert toward the southeast . . . One of the most extensive faults in California runs southeastward through the Coast ranges north of the San Gabriel mountains, through Cajon pass, south of the San Bernardino range and through San Gorgonio pass into the Colorado desert. Here it is no longer traceable; but since, if projected, it would follow closely the axis of the desert valley, through the Salton Sink and southeastward toward the Gulf it may well be, even here, one of the lines of weakness that has helped determine the position of the depression. As the entire basin is occupied by lake silts and alluvium of most recent origin it is evident that, unless movement had taken place along this fault at a very late date, there would be no surface indication of it. Phenomena like the obsidian buttes, (glass-like volcanic excrescences) 6 or 8 miles southwest of Imperial Junction and the group of solfataras (mud-volcanoes emitting sulphureous gases) seen there until submerged by the waters of Salton sea, may well be associated with a profound fracture of this nature. The other group of solfataras, 35 or 40 miles southeast of Calexico, near the base of the Cerro Prieto in Mexico, is distributed for two or three miles along a northeast-southwest line parallel to the structures in the mountain ranges to the west. All of this evidence, taken together, indicates strongly that the desert valley is associated with structures in which faults are prominent, and leads logically to the conclusion that the desert is a constructional depression due to the marked and probably irregular subsidence of a number of faulted strips."

Concerning the geological period during which these phenomena probably occurred Mr. Mendenhall says: 'The conclusions are . . . that at least a part of this movement has taken place since the Tertiary rocks were deposited—fossils prove the presence of Miocene beds, and clearly later rocks are probably Pliocene—and as associated solfataric phenomena and the derived land forms are so well preserved, it is likely that much of the movement is late Pliocene or Pleistocene."

This subsidence of the floor of the valley must have been followed at once by an inrush of the waters of the Gulf of California. Authorities agree that, at a period comparatively recent from the geologist's point of view, the placid waters of the Pacific covered this section, and, although its northwestern limits cannot be located definitely today, it is probable the tide-waters lapped the sands at the base, or very near the base, of San Jacinto mountain.

It was into this water that the Colorado found its way in ages past. It must be remembered again that the rivers making up the Colorado and that stream itself flow rapidly until the waters

The Christian Church in Imperial was the First Frame Building in Imperial Valley approach their point of discharge. It was impossible, therefore, for them to lose their heavy charge of silt on their way. This instead was poured into the ocean year after year, until, in the course of many centuries, it had spread out over a considerable area about the bed of the gulf at the point where the rivers debouched.

The formation of a delta can be found described in any school geography: in brief it consists of a gradual growth of land built up from deposited river silts. Although the river goes on flowing steadily its deposits gradually circumscribe its course—in short, the stream forms for itself new banks. In the passing of centuries the Colorado and the Gila built deltas, built new channels, joined their waters and together went on with their work of bringing down to the sea the alluvium of their upper reaches until they had covered, under hundreds of feet of mud, the original floor of the gulf. When this time came the silt began to grow up more and more about the streams themselves, crowding them farther and farther on, growing ever higher and higher, until at length it completed its destiny as a creator and—with a pronounced wall from Pilot Knob on the east to Cerro Prieto on the west—cut the Gulf of California in two.

Though there thus became two distinct bodies of water, one the shortened Gulf of California and the other a great inland sea, the rivers were never through bringing down silt deposits. Compelled by its own efforts to flow southward now the Colorado went on building and in the course of more ages had extended the high ground at its mouth until it flowed in a channel at least 40 feet above sea level at the very point where, in the beginning of its depositing, it had emptied directly into the sea at sea-level. It was now in what Walter C. Mendenhall, the government geologist, has termed "a condition of unstable equilibrium;" in other words it had reached a condition where a very slight change in its height—as for instance at time of flood—might cause it to over-run its banks and to cut a flood channel in the very ground it had built up itself.

Mr. Mendenhall, who has written a careful digest of these phenomena in the work before referred to, says further: "By such a process (over-flowing its self-constituted banks) the Colorado must have discharged alternately into the gulf and into the depression now known as the Salton Sink, meanwhile building up the delta dam that separates them . . . During this process it is highly probable that water filled the Salton depression and evaporated from it many times for it must have quickly disappeared whenever the erratic river changed its course to the gulf, for the run-off from the mountains that surrounded the sink is too slight to maintain a permanent water body in this region of intense evaporation."

There is every reason to believe, however, that during these eras of ebb and flow there were periods scores of years in length when the great lake whose surface was 40 feet above sea level and whose surface area Mr. Mendenhall computes at 2,100 square miles, lapped the rocks of the mountains surrounding. In fact it is possible to see today, on the north and west sides of the Valley, many feet above the old beach line, distinct water marks and the encrustations formed as the waves, heavily impregnated with alkaline matter, dashed against the rocks and left on them scales of indurated salts. This lake is first mentioned as a proven certainty by Prof. Blake, whose explorations are referred to above, and, in his report to the National Geographic Society within the last decade, this pioneer in desert geology names the vanished body of water Lake Cahuilla, which name has been adopted for it.

That Lake Cahuilla existed as an entity for many generations is proven by the presence over the whole floor of the desert, of fresh water shells. Shell fish change their habitat by most gradual processes and it is easy to see, from the number and varying size of those found over the desert, that they flourished here for a very long period of time, multiplying, aging and dying, to be replaced by younger generations.

It is plain, then, that as nearly as we can discover, the Colorado Desert was at first no desert at all but a part of that structural mass now surrounding it in the form of mountains; that the presence of faults in this structure caused a distinct subsidence to occur—the floor of the present desert settling probably 1,000 feet and being at once inundated by the waters of the Gulf of California; that this gulf received the silt-laden waters of the Colorado and Gila, with their numerous tributaries until such time as a delta was formed and a wall raised dividing the gulf in twain, and forming Lake Cahuilla, into which poured the fresh waters of the rivers for many centuries, until the surface of this lake was 40 feet above sea level and extended over an area of more than 2,100 square miles; that at last so great a barrier was raised between tide water and the lake that only semi-occasionally did the

Colorado overflow into Lake Cahuilla and then only for comparatively short periods—so short, in fact, that evaporation gradually lowered the surface, foot by foot, until it was at sea level and then, foot by foot, until the brackish inland sea, washing its bed more or less thoroughly as it receded—rocked by the winds—shrunk away to nothingness, leaving only at its deepest point a great bed of salts, a myriad of fresh water shells, and a soil of rich alluvium and detritus from 250 to 1000 feet in depth. Years passed and man came with his ditches, his dredging and his insufficient experience with the great Mother of the desert—the Colorado river. She must have watched his puerile efforts with amusement for when she chose she swept over his little barriers and for two years gave him battle such as no engineers in the history of man have waged. She partially refilled Lake Cahuilla, this smaller body of water becoming known as "Salton Sea;" but at last, beaten for the time at least, she turned again toward the gulf, venting her spleen by tearing the lower delta apart and changing her course westward to Volcano Lake and through the channels of Hardy's Colorado.

CHAPTER I

VALLEY BEFORE SETTLEMENT

PART TWO

The Colorado desert throughout historic times must have presented very little to man of interest or profit and yet it has been repeatedly visited, has been written of by many thoughtful and observant men, and has an history quite apart from that of any other section of the Southwest. It was crossed by military parties as early as 1846, was investigated by an eminent geologist and naturalist in 1853, was surveyed by government contractors first in 1855 and 1856, was spanned with a chain of overland stage stations in 1858, was studied with a view to reclamation in the same year, was visited by scientists in the seventies, was partially re-surveyed in 1880, was traversed by the railroad in 1886, was prospected and finally located on as a claim for working its salt beds in the same year, was surveyed with a view to reclaiming it in 1892 again, and was finally touched by the magic hand of the water king in 1902—since when it has been more in the public prints than probably any irrigated area in the history of the world.

One of the early records of a visit to this desert is found in the report of Topographical Engineer W. H. Emory, U. S. A., published by the government as a Senate document in 1847. In the spring of 1846 the government of the United States was urged by Americans in Southern California, which was then a part of the Mexican territory of Alta California, to send troops to San Diego and Los Angeles to protect them from the insults and the depredations of a semi-organized force of Mexican desperadoes. The nearest post to the Coast was at Fort Leavenworth, Kansas, and the route between the two points was one little traveled and beset with unknown dangers and many hardships. However, since complaints from the Southwest were becoming more and more frequent, an order was issued in June, 1846, detaching a column of cavalry troops, under Colonel Phillip

Kearney, and directing them to proceed by the shortest route to San Diego, California. At the special request of the War department supplemental orders were issued sending officers of the engineering department with this expedition for observations of the country, although it was specifically stated that these observations were to be made incidental to the regular duties of an officer of the line. Lieutenant W. H. Emory and two companions were chosen for this duty, which bore little for them save the extreme of hardship and labor. For not only did they have their duties as officers of the detachment, but they were expected to make a comprehensive report on the topography, natural history, and geography of the country through which they were to pass. They must have labored diligently for Emory's report is full and circumstantial, albeit written, as he says from time to time in the course of his story, under the most trying conditions, usually at night after a hard day's march, and always with data gathered at the expense of much extra trouble.

After describing with much exactness the country traversed from Leavenworth, through the southwest to the Gila river and down that stream to the Colorado, and after telling of the sorry condition in which the troops found themselves after their four four months' march, the writer goes on:

"Nov. 25, 1846. At the ford the Colorado is 1500 feet wide and flows at the rate of a mile and a half per hour, its greatest depth in the channel at the ford where we crossed being four feet. The banks are low—not more than four feet high and, judging from indication, sometimes, though not frequently, overflowed. Its general appearance at this point is not much unlike that of the Arkansas with its turbid waters . . . After crossing we ascended the river three-quarters of a mile where we encountered an immense sand drift and from that point until we halted the great highway lies along the foot of this drift which is continually, but slowly, encroaching down the Valley. . . .

"Nov. 26. The dawn of day found every man on horseback and a bunch of grass from the Colorado tied behind him on the cantle of his saddle. After getting well under way the keen air at 26° Fahr. made it most comfortable to walk. We travelled four miles along the sand butte in the same direction as yesterday, about south 75 degrees west (magnetic). We mounted the butte and found after a short distance a firmer footing covered with fragments of lava rounded by water, and many agates. We were now fairly on the desert. Our course now inclined a few degrees more to the north and at ten a. m. we found a large patch of grama (course grass) where we halted for an hour, and then pursued our way over the plains covered with fragments of lava, traversed at intervals by sand dunes, until four p. m. when, after traveling 24 miles, we reached the Alamo or cottonwood. At this point the captured Spaniards (guides carried by the party) informed us that we would find a running stream a few rods to the west, but this was not found. Neither was there any cottonwood at the Alamo, as its name would signify . . . the trees probably having been covered by the encroachments of the sand, which here terminates in a bluff forty feet high making the arc of a great circle convexing to the north."

Town Building Began with the Hotel, Land Office and Store in Imperial in 1901

Descending this bluff the troops found evidences of an old water hole, probably used by Mexicans, and here a pit some 15 or 20 feet in depth was dug to water. The writer records that every man in the column was given water first—then the horses and pack mules were served until all had enough. However, he says: "The animals still had an aching void to fill and all night were heard the munching of dry sticks and their piteous cries for more congenial food."

"Nov. 27 and 28. Today we started a few minutes after sunrise. Our course was a winding one to avoid the sand drifts.

The Mexicans had informed us that the waters of the salt lake some thirty or forty miles distant were too salt to use but other information led us to think the intelligence was wrong. We accordingly tried to reach it. About three p. m. we disengaged ourselves from the sand and went due (magnetic) west over an immense level of clay detritus, hard and smooth as a bowling green. [Does he refer to the spot whereon the city of Imperial now stands?—Ed.] The heavy sand had proved too much for many horses and some mules and all the efforts of their drivers could bring them no farther than the middle of this dreary desert. About eight o'clock, as we approached the lake the stench of dead animals confirmed the report of the Mexicans and put to flight all hopes of our being able to use the water. The basin of the lake, as well as I could judge at night, was about three-quarters of a mile long and half a mile wide. [Apparently Badger Lake, now dry.—Ed.] . . . It was wholly unfit for man or brute and we studiously kept the latter from it thinking it would only aggravate their thirst. One or two of the men came in late and rushing to the lake, threw themselves down and took many swallows before discovering their mistake. The effect was not injurious except that it increased their thirst. . . . A few mesquite trees . . . bordered the lake and on these our mules munched till they had sufficiently refreshed themselves. When the call to saddle was sounded we groped silently our way in the dark.

"The stoutest animals now began to stagger and when day dawned scarcely a man was seen mounted. With the sun rose a heavy fog from the southwest, no doubt from the gulf, and, sweeping toward us, enveloped us for two or three hours, wetting our blankets and giving relief to the animals. Before it had dispersed we came to a patch of sun burned grass. When the fog had entirely dispersed we found ourselves entering a gap in the mountains, which had been before us for four days. The plain was crossed, but we had not yet found water. The first valley we reached was dry and it was not until twelve o'clock that we struck the Carriso (cane) creek, within half a mile of one of its sources. . . . Here we halted, having made fifty-four miles in the two days.

"The desert over which we had passed, ninety miles from water to water, is an immense triangular plain, bounded on one side by the Colorado, on the west by the Cordilleras of California, the coast chain of mountains which now encircle us, . . . and on the northeast by a chain of mountains . . . running southeast and northwest. It is chiefly covered with floating sand, the surface of which, in various places, is white with diminutive spinelas and everywhere over the whole surface is found the large and soft mussel-shell."

Though it was only after the loss of a great many animals and several men, the party under Kearney reached San Diego early in the year 1847, and Lieut. Emory had the privilege of engaging with the Mexicans both at the seaport settlement and later at the battle of Los Angeles, when the American force planted the flag there to stay. His whole report is one of great interest and may be secured of the government bureau of publications until the limited supply there is exhausted.

Another military expedition, sent out to investigate the feasibility of railroad routes to the Coast, crossed the desert in 1853 under Lieut. R. S. Williamson and one of the party, Prof. William P. Blake, assigned to duty with the army men as naturalist, wrote a graphic description of the desert and a somewhat exhaustive study of its geology. As regards the latter reference is made to his findings in another place. Walter C. Mendenhall, in his "Sketch of the Colorado Desert," says: "The party to which Prof. Blake was attached entered the desert from San Bernardino through San Gorgonio Pass. The first stop was made at Palm Springs and the second at Indian Well, in the northwestern end of the desert, now usually called the Coachella Valley. The explorers visited the springs at Toro and Agua Dulce, which have since been included in the Indian reservations and were then centers about which Indian habitations were clustered. Below Fig Tree John's the expedition encountered difficulties in its attempt to reach the old stage road which followed Carriso Valley from the desert floor to the base of the Peninsula range. Along the west side of Salton Sea there is a wide area in which potable water was at that time very scarce and it was only after several of the animals of their pack train were nearly exhausted that the members of the expedition finally found water in the vicinity of Salt Creek, near what are now known as McCain's Springs.

"Prof. Blake describes the physical aspects of the desert, the effects of wind erosion upon rocks near Palm Springs, the old water line along the western border and such other geological phenomena as were observed; and he mentions the springs which he visited during his journey or about which he could obtain reliable information. It is interesting to note that, in the course of his discussion, he predicted that artesian water would be found beneath the surface of the desert. Thirty-five years afterward this prediction was fulfilled."

Mr. Mendenhall refers in the last sentence to the discovery of artesian water by the Southern Pacific engineers in 1888; at the time his report was prepared the artesian water of the Eastside in this Valley was scarcely dreamed of, save by a few.

Very few of the corners established by the government survey of 1855-6 have ever been found, but it remains a fact that field notes were turned in by the contractors having such work in hand at that time, purporting to cover a complete study of this desert. Both this survey and that of 1880 (Brunt's) are taken up in a later chapter.

In 1858 two important events occurred in the history of this desert. For many years overland travelers to the coast, particularly from the Middle West and the South, had passed through the desert, crossing the Colorado either by ford or on a ferry operated there from about 1848 to the present day. There was a wagon road, such as it was, from the ford at the Yuma settlement, west to Sunset springs, where it forked—one branch running northwest along the present line of the railroad, and through San Gorgonio pass, and one branch running west by south over the Carriso creek route. The latter was more frequently traveled and in fact a stage was operated by this road for a short time in the gold hunting days of 1849.

But in 1858 a mail contract was signed with the government by David Butterfield, who undertook to put overland mail through from St. Louis to San Francisco twice each month. This Butterfield stage line brought many of the sturdy pioneers of those days to the coast and many among them can tell you today of that long and weary ride. Regular trips consumed 22 days, although occasionally Los Angeles or San Francisco would be aroused by the arrival of the mail from twenty to sixty hours ahead of time. When the Civil War was declared the stage was run once each week and important messages were carried through on one occasion in 16 days, which was for many years a record pointed to with pride by every person living along the route of the stage line.

This old Butterfield route had three-stage stations on the desert. One station was at Coyote Springs, another at Indian Wells and the third near the southern limit of the Eastside chain of sand hills. In the early days of the Imperial Valley settlers found an abandoned adobe near the present site of Silsbee, this being the Indian Wells station. The one on the Eastside makes imposing ruins. The stage followed the Carriso creek route and was an established and paying institution until the eighties, when the Southern Pacific line was completed and trains began to be operated.

The other event that marked the year of 1858 was the discovery of the possibilities of this desert for reclamation. Dr. Oliver M. Wozencraft, a cultured and learned Ohioan who had been educated in Kentucky, was the man who first seriously talked of bringing the waters of the Colorado River into the Salton sink for the purposes of agriculture through irrigation. Although laughed at by many as a dreamer Dr. Wozencraft went into the preliminary investigation of the project thoroughly and carried it to a point where it might have been consummated but for the breaking out, in 1860, of the Civil War. Because his project was so generally similar to the one finally carried to a successful end it may be of value to give more than passing attention to him and his work.

Before the Canal was Built to Imperial Water was Hauled from a Sink in New River

Oliver Meredith Wozencraft was born in Clermont City, Ohio, June 26, 1814. He graduated from St. Joseph's college at Bairdstown, Kentucky, receiving a degree of Doctor of Medicine. After practicing a few years in his home town Dr. Wozencraft joined the rush to California in 1849 and located in San Francisco, where, from 1850 to 1860, he was United States Indian agent. In his first year he was active in the organization of the state, being a delegate to the first constitutional convention of September and October, 1849. He was an enthusiastic supporter of the movement to secure a railroad from the east and was sent to Washington to lobby for bills looking to the aid of such a project.

Dr. Wozencraft's first excursion into the desert he describes in his personal diary in a most interesting way. He had conceived an interest in the unknown features of this country and in the early part of May, 1849, set out to see it. He took with him several men, riding mules and a pack train and planned a careful investigation. Describing the "jornada" he says: "We at last reached this—the most formidable of all deserts on this continent. We found its basin filled with turbid water. Crossing in an improvised boat made of ox-hide, we encountered the desert. We started in the evening, taking a trail which soon led us into sand drifts, and as their walls are nearly perpendicular and as unsubstantial as a sand bank, we were compelled to halt. I set about prospecting to find a way out. There was a sand hill not far off. I climbed to the top and found that the sand drifts could be avoided by going to the bottom lands near the river. On my return to the men, they having fallen asleep, I found that the drifting sand had almost covered them up. We were some three days—or more properly speaking—nights—crossing this desert. The extreme heat in the daytime compelled us to seek shelter under our blankets. The heat was so intense that on the third day two of my men failed. It occurred to me, as there was nothing I could do there, to mount my gentle and patient mule, and at a distance of some eight miles I reached the border of the desert and water, with which I filled a bag and brought it back to them.

"It was then and there that I first conceived the idea of the reclamation of the desert."

Ten years later a bill was presented to the California state legislature proposing to cede to Dr. Wozencraft all state rights to the land on this desert in consideration of his reclamation of them from their waste condition, and when the promoter explained his ideas the bill was immediately taken up and passed April 15, 1859. There remained, then, only the consent of the federal government and this was contemplated in a bill presented in the fall of the same year. The report of the hearing on this bill before the proper committee of the House outlines the plan as follows:

"This bill proposes, in consideration of the introduction of a wholesome supply of fresh water into the Colorado desert, to cede to Oliver M. Wozencraft and his associates the said desert tract as described in the bill. This tract embraces (according to Lieutenant Brigland) about 1600 square miles in the basin of what is now and must remain, until an energetic and extensive system of reclamation is inaugurated and brought to successful completion, a valueless and horrible desert. The labor of reclamation must be commenced within two years and be completed within ten years. As fast as water shall be introduced, upon a report to that effect being made to the government by a duly appointed commission, patents shall issue for the parts reclaimed, and when all of the conditions are fulfilled, then, and not until then, shall the title rest in said grantee."

The committee reported favorably, but the report was received late in the session, large matters of state were looming on the horizon, and the western course of empire was put aside temporarily for more pressing business. The crash that was presaged by events of 1859 came the following year at Fort Sumter and the Wozencraft scheme was completely lost sight of. At the close of the war Dr. Wozencraft renewed his activities, but always his interests were crowded to one side in the great conflicts that rent the federal assemblages, and again and again he went to Washington to find himself lost in the maze of national complications and disturbances. Just on the eve of the session of 1887, wherein a friendly representative had promised to bring the matter up for another hearing Dr. Wozencraft, then in Washington in attendance on the interests of his beloved bill, was suddenly stricken ill and died before his relatives in San Bernardino, California, could reach him.

Of his hopes, his investments and his losses Dr. Wozencraft's daughter, Mrs. Mary A. Steibrenner, of San Bernardino, wrote in the spring of 1910: "It was his own idea, and no one's else. . . . You ask how much he spent? Shall I say it? My dear father lost a fortune on it; he defrayed all the expenses of many trips with capitalists, law-makers and others, to the desert; he spent large sums for traveling to Washington and home again, and for heavy burdens of expense while at the capitol. His last sacrifice was a beautiful home in San Francisco. Everything went for the desert. Dear father was confident of success: he gave his very life to achieve its reclamation."

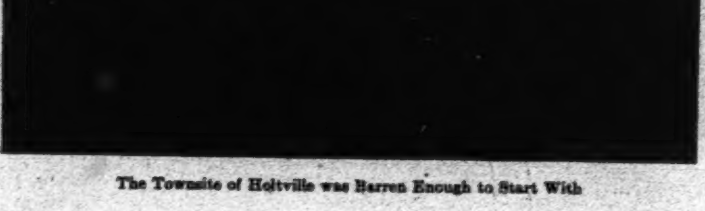
Dr. Wozencraft was ahead of his times, perhaps too far. For, had his project materialized, it is possible that colonization in those days when land was to be had anywhere in Southern California at a low figure, and when every person in the state was more or less distracted by the stampedes from one rich mining find to another, might have proven an impossible undertaking. That Wozencraft himself might have built up a colossal fortune from ranching here, as some writers have evidently believed, seems preposterous. It was two decades before the railroad was built, there was more produce raised in Southern California by desultory farming than was consumed, and no single individual could have coped with the Colorado river if its behaviour then was no better than it is today. However, Dr. Wozencraft showed what might be done and he has many claims to the proud title—"Father of the Imperial Valley."

The construction of the railroad in the eighties was of monumental importance to the whole Southwest. One of the first overland travelers by this route was a man of whose connection with the Colorado desert nothing has before been printed, so far as we are able to find, but who conceived that reclamation of the desert was possible and who carried the scheme to several capitalists before he abandoned it. This man was H. S. Worthington, son of Henry Worthington, a very rich dealer in leaf tobacco, who did business in Cincinnati, but whose home was in Covington, Kentucky. The younger Worthington was not an engineer, but a man of very wide reading and culture and one who had infinite faith in the future of the Southwest. Indeed he wrote several monographs on this subject, some of which were published, but none of which can be found.

Worthington saw the possibilities presented in this region and while in San Francisco broached them to Henry E. Huntington and his principal assistant, Mr. Epes Randolph. It is to Mr. Randolph that we are indebted for this bit of hitherto unpublished history and it is used, with many thanks to him, in this place. At that time Mr. Huntington had several enterprises in hand and it was impossible for him to give any attention to the Worthington plan. The promoter carried the scheme to capitalists in the East but was unable to interest them and, other matters compelling his attention shortly, he dropped the plan. The death of his father made him independent and it is probable that only a sentimental interest in the country remains with him.

With the coming of the New Liverpool Salt company in 1883 the first part of the history of the Colorado desert is closed. This corporation filed on some land and leased some from the Southern Pacific railroad, scraping the salt—that lay in great layers over many square miles of territory in the bottom of what is now the Salton sea—into piles with steam plows and then purifying it. The business was immensely profitable but was completely wiped out by the overflow of the Colorado river in 1905-06 and 07, and it is doubtful if it will ever be resumed.

The conqueror of the desert is at hand. Look down, now, on that great expanse of burning waste for the last time. Nature shook the mountains from the base and a great area subsided to become the floor of a sea. Ages passed; a river had its way; a great lake lay for centuries sleeping in the sun; then the river left and the sun ate up the expanse of waters, leaving another waste—but this time only waiting the touch of man's hand to blossom into a garden of incomparable beauty and richness and to give homes to thousands and sustenance to millions. Look on this waste for the last time for we are hurrying on to the ultimate destiny of the Colorado Desert.



The Townsite of Holtville was Barren Enough to Start With

CHAPTER II

HISTORY OF RECLAMATION

We have taken time to study, in the preceding chapters, a little historical data ante-dating the real "Story of the First Decade," but this was necessary to make our beginning intelligent.

As the chapters following this are entirely concerned with the transformation of this waste of which we have read into a productive territory, it is necessary that we make one more digression before going on with our study and look for a short time into the history of that branch of human endeavor that is responsible for the metamorphosis—reclamation. Briefly, then, let us glance at its history from the earliest days to the present time.

It is impossible to trace, with any considerable accuracy, the early history of reclamation, but that such work was consummated on a large scale in ancient days is incontrovertible. Not only are we able to discover accounts of irrigation in very old documents, and to find today many traces definitely identified as those of large reclamation systems, but there are, in many parts of the old world, several of those ancient projects still being operated; probably with little change from the days of their founders, even though the names or age of the latter be lost in the obscurity of the centuries. The same is true in the Salt River Valley, Arizona, where there is now in use part of an irrigation system built by a lost people of whom there is not even a tradition. It would be most interesting to follow the history of this important branch of agriculture with some particularity, but this is impossible. As briefly as possible, instead, a cursory glance at the field in early times will be taken in this chapter.

The first account we find of irrigation is given by Herodotus, who, writing in the fifth century before Christ, described in some detail the colossal project of the kings of Egypt, Moeris and Amenemhet III, about 2000 B. C. on the Nile river. As is commonly known, the Nile overflows annually. In this respect, as well as in the formation, by the river, of a great delta of rich alluvial matter at its mouth, the Egyptian river is very like the Colorado. The ancient inhabitants of the Valley of the Lower Nile tilled the soil extensively, depending for their water on this annual overflow. But in time it is probable that, either because population increased or because the annual overflow did much damage, it was found necessary to control, in some measure, the floods of the giant stream.

To this end one of these kings started work on a great impounding basin, at Birket-el-Keroon, near the head of the delta. Whether Moeris, who came first, began the actual work of construction or whether his plans were the ones followed by his successor, Amenemhet III, is uncertain, but the fact remains the basin is today known as Lake Moeris and continues to serve, to some extent, at least, the purpose for which it was originally intended. In brief, the object of the basin, which was connected with the Nile by means of two large parallel canals, controlled by adjustable gates, was to receive the surplus water of the river during flood seasons and to hold it there—the gates being dropped at ebb-tide—until such time as the tillers of the soil demanded more water than the lowering Nile afforded. The basin was at least 50 miles long by 8 wide, although probably not deep, as depth afforded no advantage. Authorities differ as to the date at which this great project was completed, although it seems probable, Herodotus says, that final work was not done until a later period, possibly about 1800 B. C.

From this time forward it is certain every available acre of ground in the Delta was intensively cultivated. As early as the time of the classic historian more than 200,000 acres were planted to cotton, while millet, wheat, corn and vegetables flourished on half as much additional acreage. At the present time it is probable there are a million acres under cultivation in the northern part of Africa, all watered by means of controlled irrigation systems.

Prof. F. H. King, of the University of Wisconsin, in his book "Irrigation and Drainage," says: "Sesostris, who reigned in Egypt in 1491 B. C., is said to have had a great number of canals cut for the purposes of trade and irrigation and to have designed the first canal to connect the Red Sea with the Mediterranean . . . The Assyrians appear to have been equally renowned with the Egyptians from very ancient times for their skill and ingenuity in developing extended irrigation systems which converted the naturally sterile valleys of the Euphrates and Tigris into the most fertile of fields. We are told that the country below Hit on the Euphrates and Samara on the Tigris was at one time intersected with numerous canals, one of the most ancient of which was the Nahr Malikah, connecting the Euphrates with the Tigris. The ancient city of Babylon seems to have been protected from the floods of June, July and August by high cemented brick embankments on both banks of the Euphrates, and—to supplement the protection of these and to store water for irrigation—a large reservoir was excavated, 42 miles in circumference and 35 feet deep, into which the whole river might be turned through an artificial canal."

On the Tigris, the writer says, there were two canals—the Nahrawan and the Dyiel, with several smaller ones. He continues: "Along the banks of the former of these canals . . . are now found the ruins of numerous cities on both sides which are silent witnesses of the great importance it held and the great antiquity of the work. It started on the right bank of the river where it comes from the Hamrine hills and was led away at a distance of six or seven miles from the stream toward Samara where it joined a second canal. Another feeder was received ten miles farther on its course to Bagdad, a few miles beyond which its waters fell into the river Shirwan and were again taken out over a wier and led on through Kurzistan. It absorbed all the streams from the Sour and Buckharee mountains and finally discharged into the Kirkha river, but only after having attained a length exceeding 400 miles with a width varying from 250 to 400 feet. This great canal, with its numerous branches on either side leading waters to broad irrigated fields while it bore along its main waterway the commerce of those far distant days, stands out as a piece of bold engineering hardly equalled by anything of its kind in modern times."

Late in the fourth century B. C. the Greek adventurer, Agathocles, returning to Sicily from an African campaign, wrote that "the African shore was covered with gardens and large plantations, everywhere abounding in canals by means of which they were plentifully watered," and at the same time both Greece and Rome, following the example of the older civilizations, were projecting and building irrigation systems.

It is probable that—contemporaneously with the same work in Egypt—the Chinese were engaged in the construction of

The Engineers' Camp at Blue Lake in 1900 was an Inviting Spot enormous irrigation systems. For almost 4,000 years the great Imperial Canal, connecting the Hoang-Ho with the Yang-tse-Kiang through the province of Kiangsu and Shan-Tung, a distance of more than 450 miles, has been furnishing water for the irrigation of millions of rich acres, and throughout the Chinese Empire are found extensive areas under artificial ditches. There are no more scientific nor skillful users of irrigating water in the world than these Orientals, as many farmers and experts in the Occident have discovered in the past decade.

Before leaving this phase of the history of irrigation it is interesting to note that the Bible refers indirectly to the artificial means of supplying moisture to arid lands. Deuteronomy XI: 10-11, reads: "For the land whither thou goest in to possess it, is not as the land of Egypt, from whence ye came out, where thou sowedst thy seed and wateredst it . . . as a garden of herbs. But the land, whither ye go to possess it, is a land of hills and valleys, and drinketh water of the rain of heaven."

Scientists have not yet agreed as to the exact date at which civilization of an early order first crept into the new hemisphere, but at whatever period that may have come it is certain irrigation was among the first projects undertaken. In Mexico, Central America and Peru, particularly the latter, early explorers, many of them ignorant of the art of irrigation, were surprised to find on this continent many extensive and successful systems. In our own country, especially along the Colorado, Rio Grande and Gila rivers, are to be found today traces of early irrigation plans, successfully projected and carried out.

In modern times the history of reclamation has gone forward very rapidly, and throughout the world the problems of irrigation engineering have engrossed the ablest technical minds and hundreds of millions of dollars have been spent on the construction of extensive operating systems outside our country. France, Belgium, Italy, Spain, Switzerland, Denmark, Austria-Hungary, Bavaria on the continent and England all have reclaimed useless land within comparatively recent times. Russia is carrying on great irrigation enterprises in Afghanistan, close to the very birth place of the human race, while probably the most extensive and most costly engineering enterprises in the world are the magnificent irrigation projects of India. Many of the difficult problems of reclamation have been solved by the engineers of India, and the Laguna Dam, so-called, above Yuma on the Colorado river today, is nothing more nor less than an Indian weir built on the general lines of the Vir structure, at the head of the Nira canal in Hindustan, near Bhutan. This Vir weir is 2340 feet long, with a maximum height above the river bottom of 40 feet and it is said that over the crest of the structure, at flood time, have poured no less than 160,000 cubic feet of water per second, in a sheet eight feet deep at the crest.

Modern reclamation in America, of private or public nature in 1890, concerned itself with approximately 3,650,000 acres, divided into 54,136 farm units. After the formation by Congress of the Reclamation Service this area was, of course, largely increased, but of that we shall speak later. In the great majority of cases the irrigation referred to as existing in 1890 in this country was carried on by means of small gravity systems, wells, or reservoirs fed either by wells or springs, and no area comparable with Imperial Valley was, at that time, under canal or ditch system. In Southern California alone many thousands of acres were being cultivated by small ranchers and watered from local springs or by means of wells. The total area under irrigation in the southern third of the state in that year was 217,000 acres which is now surpassed by Imperial Valley alone.

At the beginning of the present century, then, reclamation of arid or of undrained lands by the use of artificial irrigation systems was extensively practiced throughout the world. H. M. Wilson, in his "Manual of Irrigation Engineering" (Third Edition), sums up the situation roughly thus: "The total area irrigated in India is about 25,000,000 acres, in Egypt about 6,000,000 and in Italy about 3,700,000 acres; in Spain there are about 500,000 acres, in France 400,000 acres and in the United States 4,000,000 acres of irrigated land. This means that crops are grown on 40,000,000 acres which, but for irrigation, would be relatively barren or not profitably productive. In addition to these there are some millions more of acres cultivated by aid of irrigation in China, Japan, Australia, Algeria, South America and in many places in Europe."

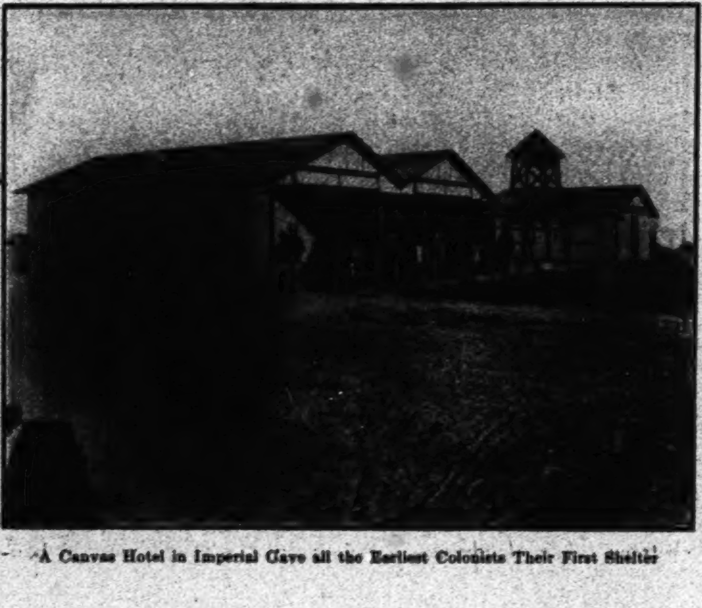
For many years the National Irrigation Congress had been advocating the governmental control of available irrigation projects in our own country. Many recommendations had been made to Congress on this point, but nothing was done definitely until about 1900, when the agitation of the matter in the West took on national significance. The success of great projects undertaken by private capital, particularly that of the California Development Company in a field on which the eyes of the government engineers had long been fixed, was becoming very widely commented on and in 1901 bills were presented to Congress looking to the setting aside of certain funds for use in irrigation. President Roosevelt actively advocated the measures and finally an act was passed and approved June 17, 1902.

The act is one of the simplest and most intelligible of any ever adopted by a national legislature in relation to a great enterprise. It provides that certain moneys received from the sale of public lands in the states of Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming, beginning June 30, 1901, shall be placed at the disposal of the Secretary of the Interior for the building of irrigation systems in those states, the money invested to be returned to the fund by land holders whose property is irrigated by the systems, in installments covering a period of not more than ten years with two years excess and this money to be turned back to the fund for further work, the theory being that early projects, paid for from the profit accruing from the sale of public lands, will make available a fund for continued extension of reclamation when the public lands will all be sold.

All of the detail of the organization was left for the Secretary of the Interior. The plan worked out by him and employed today is given herewith. First, when the engineers of the Reclamation Service discover an available project site, they recommend to the Secretary of the Interior that the public lands which would be irrigated by the water furnished by the proposed system be withdrawn from entry. When this is done surveys of the work are made and rough plans, with estimates of the probable cost entailed, are prepared and presented to the Secretary for approval. If he so elects he may then order the work to proceed, letting all contracts from his offices. When the work is completed, either in whole or in part, and water is available for irrigation, the lands under the newly finished project are thrown open to the public for entry.

For the sake of facility in handling the minutiae of diversion it is required that land owners in the several sections be organized into Water Users' Associations which will ultimately own the systems. The officers and employes of these incorporated bodies of ranchers attend to the details of measuring, diverting and handling the water and of securing to the government prompt payment of the installments due for the expense involved in building the project. In order to facilitate the latter business it has been found best to divide the expense equally between the several acres benefited, the charge being equitably fixed at so much per acre over and above the original cost of the land. While in some cases these fixed charges for water rights are costly the payments are made in easy installments, covering periods of from ten to twelve years, and thus far there has been shown no hesitancy on the part of the public in filing on lands under completed projects at any cost per acre for water rights.

It would be out of place here to attempt to take up exhaustively the work of the Reclamation Service in the eight years of its existence, for the government work has at most prospective connection with this Valley. That it has been a great and valuable work no one gainsays. Criticism of the work is sometimes heard in this Valley but it remains incontrovertible that, no matter what the faults of the Service, the idea inspiring it and all its employes and agents is a great and worthy one—the transformation of desert places into productive farm lands.



A Canvas Hotel in Imperial Gave all the Earliest Colonists Their First Shelter

There are now under way or completed almost thirty reclamation projects in the government scheme. It has been found that, in order to expedite the completion of these vast enterprises, more money can be used than comes in year by year from the sale of public lands or from other sources to the Reclamation fund in the United States Treasury department, and recently a plan has been broached to issue $30,000,000 in bonds to raise funds to augment those already available or likely to be. It is considered doubtful that these bonds will be approved by Congress, but if they are they will only hasten the work which would eventually be accomplished without them.

In order to show concisely in these pages something of the work being undertaken by the Reclamation Service, a table has been prepared summarizing the report of the Director, Frederick Haynes Newell, for the year of 1909. This summary is as follows:

Summary Reclamation Projects, U. S. R. S., as made in Eighth Annual Report of Director Newell, October, 1909.

State	Project	Computed total cost	Irrigable area of land in project	Acreage charge for water-right	Estimated value of land when irrigated	Source of water supply	Nature of Project	Per Cent Complete
Arizona	Salt River	$8,040,000.00	240,000	(a)	$16,400,000.00	Salt and Verde Rivers	Storage dam	81
Arizona-California	Yuma	5,000,000.00	90,160	(a)	9,000,000.00	Colorado river	Diversion wier	70
California	Orland	620,000.00	14,000	(a)	1,400,000.00	Stony Creek	Storage dam	35
Colorado	Grand Valley	2,865,000.00	53,000	(a)	5,300,000.00	Grand River	Diversion wier	00
"	Uncompahgre	7,000,000.00	140,000	(a)	14,000,000.00	Gunnison & Unco. Rs.	Storage and diversion dams	51
Idaho	Minidoka	3,500,000.00	132,031	30.00	7,000,000.00	Snake River	" and pumps	76
"	Payette-Boise	15,800,000.00	348,000	-----	15,800,000.00	Boise River	Storage dams (5) and diversion dam	40
Kansas	Garden City	419,000.00	10,677	37.50	1,000,000.00	Wells	Steam Turbines	98
Montana	Huntley	955,000.00	28,921	30.00	2,169,075.00	Yellowstone River	Gravity diversion	100
"	Sun River	8,280,000.00	276,000	30.00	16,115,000.00	Sun River & Deep Cr.	Storage dam	06
"	Milk River	6,450,000.00	215,000	(a)	21,000,000.00	Milk River	Storage dams (2), diversion (2)	08
Montana-No. Dakota	Draining Yellowstone	2,805,000.00	64,621	42.50	4,846,650.00	Yellowstone River	Diversion wier	92
Nebraska-Wyoming	North Platte	5,280,000.00	124,000	35.00	12,400,000.00	North Platte River	Storage dams (2) and diversion	74
"	Goshen Hole	5,000,000.00	100,000	-----	10,000,000.00	"	Canal from diversion dam	00
Nevada	Truckee-Carson	6,380,000.00	200,000	30.00	20,000,000.00	Truckee & Carson Rs.	Storage dams (2) and diversion	61
New Mexico	Carlsbad	705,000.00	20,073	31.00	1,505,475.00	Pecos River	2 Storage dams	99
"	Hondo	345,000.00	10,000	(a)	750,000.00	Hondo River	6 Earth Embankments	100
"	Leasburg	200,000.00	20,000	(a)	-----	Rio Grande	Diversion wier	100
New Mexico-Texas	Rio Grande	9,000,000.00	180,000	(a)	15,500,000.00	"	Storage dam (b) 4 wiers	00
North Dakota	No. Dakota pumping	880,000.00	22,171	38.00	1,158,550.00	Missouri River	Pumping plants (c)	50
Oregon	Umatilla	1,200,000.00	20,440	60.00	2,000,000.00	Umatilla River	Storage and diversion dams	85
Oregon-California	Klamath	4,860,000.00	172,000	30.00	8,600,000.00	Klamath & Clear Lks.	Storage dam	38
South Dakota	Bellefourche	3,000,000.00	101,967	30.00	5,098,350.00	B. & Redwater Rs.	" "	70
Utah	Strawberry Valley	2,063,000.00	60,000	(a)	6,000,000.00	S. & Spanish Fork Rs.	Storage and diversion dams	33
Washington	Okanogan	558,000.00	10,000	65.00	1,000,000.00	Salmon River	" " " "	92
"	Yakima:							
	Sunnyside Unit	5,100,000.00	100,000	52.00	31,500,000.00	Yakima River and Tributaries	5 Storage dams and 3 diversion dams	50
	Tieton unit	2,400,000.00	36,000					
	Wapat unit	3,500,000.00	116,000					
Wyoming	Shoshone	6,750,000.00	131,900	45.00	9,892,500.00	Shoshone River	Storage and (2) diversion dams	45
		119,555,000.00	3,037,961	------	239,435,600.00			57 (d)

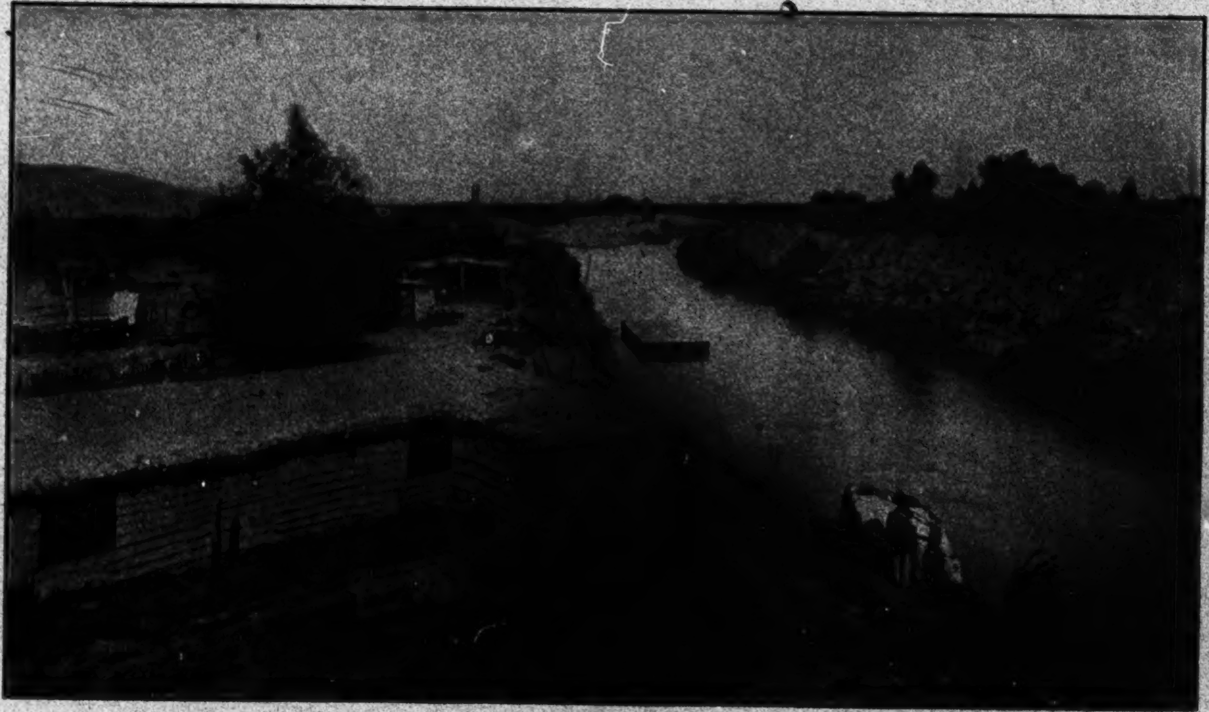
(a) Charges not yet fixed by the Secretary of the Interior. (b) Rio Grande project reservoirs largest capacity in the world. (c) North Dakota project comprises burning coal from government coal mine to develop electricity which is used to operate pumps set on barges moored in River. (d) Per cent complete of aggregate projects.

CHAPTER III

ROCKWOOD'S ARRIVAL

Into this desert country, which had grown to be a dread to overland travelers and in which only a bare half-score had found any virtue, there came at last an aggressive, ambitious young engineer, who saw the proximity of the great alluvial plain to the abundant waters of the Colorado, and who, in mental pictures, had a larger vision than it had been given any other man to see of the potentialities of the Colorado delta. In a way his coming was an accident: he had been sent to the country far to the southeast to investigate the possiblities of irrigation in the Sonora country in Mexico, but had visited the desert, called (for convenience) the Salton sink, in order to compare it with the other. His accidental discovery was the Imperial Valley: the engineer was Charles Robinson Rockwood.

Since from that day to this the history of the country has been more or less associated with and dependent on, the history of the man, it is necessary here that we stop to find out who and what he was. Born in 1860 in Michigan, educated at the University of Michigan, which institution he was forced to leave on account of eye trouble, Rockwood had turned, at the age of twenty to engineering in the West. The Denver and Rio Grande railroad employed him for two years, then he went to the Southern Pacific in California for seven years and then to the service of the United States in its geological survey in 1889. At the age of thirty he was made chief engineer of the Northern Pacific, Yakima and Kittitas Irrigation company, organized for the purpose of reclaiming the Yakima Valley in Oregon, and in this capacity he completed plans for extensive work there which would have been consummated but for the financial troubles of 1892. The Northern Pacific railroad withdrew its support of the enterprise at this time and Rockwood went at once to Denver, in answer to an urgent letter from John C. Beatty, a promoter.



Headquarters Near the Colorado
The Chaffey Gate and Original Intake is Shown in Background

Beatty had reports of an immense area of arable and irrigable land in Sonora, Mexico, to which might be diverted the waters of the Colorado, and he desired that Rockwood, of whom he had heard among engineers in Denver, should expert the project for him. As an indication of Beatty's modern methods of promotion it may be said that he had organized his company and made an effort to dispose of some of his stock before he sent for Rockwood: it was apparent, then, what sort of a report was wanted. Rockwood went to Yuma, went down the Colorado on a flat-boat and thoroughly investigated the project as outlined to him by Beatty, finding it utterly impractical. At Yuma, however, he got an inkling of the territory lying to the west of that settlement, and quite on his own responsibility he went in to the Salton sink to spy out the land.

His discoveries surprised and delighted him. To him, having had experience both with railroads and with irrigation projection, the desert, abutting on the Colorado, and tapped by the main line of the Southern Pacific railroad, and drained by two natural channels that might be cheaply enlarged, the waste lost its terror and its hopelessness and took on an aspect entirely new. He returned to Yuma and made a cursory examination for possible heading sites, then hurried back to Denver with his report.

That the latter condemned the project he had already started to float daunted Beatty not a whit. With the cheerful insouciance characteristic of men who deal in paper values Beatty readily turned from the old love to the new and within a short time had changed his corporation to the Colorado River Irrigation company. Some stock was sold, enough to warrant Rockwood making a careful survey, and this, in the winter of 1892, he started. His beginning was made in the vicinity of Potholes, a point on the Colorado river so named because there were found in the headland there several bowl-shaped holes, occasionally filled with rain water. From this place he worked southwest past Pilot Knob into Mexican territory and thence west and north into the Salton sink. The work was continued by Mr. Rockwood and his associate, Engineer C. N. Perry, an old friend, until the spring of 1893 when, with field notes worth $5,000 and a feasible plan worth tens of thousands, they returned to Denver.

Beatty and his associates were pleased with the plan outlined, but the panic of 1893 crippled them and made it impossible to obtain money in Denver, so that Beatty went to New York to attempt floating the scheme there. He was an able and aggressive promotor and a hard worker, so that, even in those troublous times, he met with some measure of success. With an organization effected by means of a corporation whose directors were all admitted only to obtain the use of their names in the enterprise, and with a capital stock that was largely on paper, the angel of the project succeeded in interesting a cousin, James Beatty, of Canada, to the extent of $50,000 in cash. It is not recorded that legitimate projection was made possible with this capital and in 1894 James Beatty filed suit to enjoin his energetic relative from disposing of any more stock in the enterprise.

Meantime Rockwood was cooling his heels in a weary wait for money with which to proceed. He studied his first rough survey carefully and made another visit to the desert. The question of rights in Mexico had arisen at the first. He had investigated, finding that a large acreage adjoining the land he proposed to reclaim was owned under a Mexican concession by General Guillermo Andrade, then Mexican consul at Los Angeles. General Andrade had told Rockwood that a Scotch syndicate held an option to purchase these lands but intimated that the foreigners might either abandon their claims or enter into the Rockwood project. Rockwood now went back again to Los Angeles and there outlined the scheme to the Mexican official, but felt constrained about doing anything actively until he should hear from Beatty.

As the latter was accomplishing nothing and as no money was forthcoming, Rockwood at last resolved to tie up the negotiable papers he held and all the collateral, including the surveying instruments and field notes on the project, which he was successful in doing, both for himself and for his associate C. N. Perry. It was now the summer of 1894 and not a wheel had turned.

It is difficult for contemporaneous history properly to classify. It is also difficult to write soundly of a man or an event with which the writer is in close touch, for one must reckon with the personal equation. Likely enough future historians will be better qualified to say what motives actuated Rockwood, how much credit is due him, and to what extent he was stirred by selfish feelings. At this close range, however, it seems apparent that he was first and foremost a constructive engineer, and that his plan for reclamation subordinated to itself all other feelings. It is certain that he was ambitious. It is certain that he had a broad view of the financial possibilities of his scheme. It is probable that he looked forward to the day when he, sitting in his office at the head of a great irrigation project, should be able to direct the destinies of a people, happy and prosperous in fertile fields that had once been barren wastes.

Even a cursory analysis of the technical mind, however, will bring to light another phase of this interesting study of the psychology of Rockwood's early efforts. From his first apprenticeship the engineer is surfeited with the big things of construction. His smallest problems concern rivers, or mountain chains, or sullen gorges and he learns to dispose of details with tables and slide rules. The habit of mind he acquires is succinctly expressed in his phrase: "It's all in the day's work."

Perhaps Engineer Rockwood laid hold on this gigantic project with the feeling that the gods of his machine had entrusted it to him, and before he realized it the scheme obsessed him. Perhaps his experiences in the next ten years were, to him, "all in the day's work."

In order to look on the events that are to be retold in succeeding chapters with a fuller understanding, it might be well at this time to pause for a moment again and review conditions in the Southwest in the early nineties. The territory was just beginning to get its stride. Los Angeles, its largest city, was an overgrown community of 60,000, with probably 40,000 more living in the immediate neighborhood. In the main the Southwes- was sparsely settled, although its future was big with possibilities already being grasped. Commercial activity was beginning and colonization throughout the entire area grew apace. At that time there was a great deal of cheap land to be had in Southern California, although in much of this territory the development of water was an unanswered question. In the course of a perusal of this history if the reader is surprised at the lethargy displayed by settlers who might have secured cheap land in Imperial Valley without great effort when the project was launched, he must remember that there was other cheap land to be had and that in districts more favored, by repute, in transportation and social advantages, than the famed Colorado desert. Indeed it has frequently occurred to the writers that, had Rockwood and his associates succeeded at the outset in getting capital to finance their project in 1892 or 1894, it might have been several years later before settlement occurred in a measure large enough to

Thirty to Fifty Miles of Freighting
With Such Teams Sometimes with as Many as Twenty Horses or Mules, Supplies were Brought from the Railroad

justify the promotion. In other words an early start might have resulted in the expenditure of a large amount of money before returns began to come in and the project might have been doomed to the same fate that met many boom towns and enterprises in Southern California in those days.

But the possibilities for the future were there and Rockwood was never deceived in that regard. Soil, water and climate, the combination sine qua non for agriculture, were in proximity in the Valley, a great railroad tapped it, another to run through the heart of it, the San Diego and Eastern line which had been built by San Diego newspapers many years before, might be revived, and the impending rush of settlers to the Southwest, which could be foreseen by any man of discernment, and was foreseen to the enriching of tens of thousands in and about Los Angeles at that time, was in the very air.

The opportunity and the man had met.

CHAPTER IV

ENTER CAPITAL

Modern painting has two schools—the idealist and the realist: so has modern promotion. C. R. Rockwood, the trained engineer, had been too long an employe subordinating his ambition and his creating force to the needs of his "job," to be able immediately after seeing the possibilities presented by the proximity of a rich alluvial waste to abundant water, to launch the project on his own inititative. To him it was a dream—opening an inland empire for the enrichment of others, but at the same time offering an opportunity for self-aggrandizement and profit. Concerning the latter features of the vision, however, Rockwood must have had very indistinct impressions. To him the possibility of reclamation loomed very large.

As has been said, he was already in the employ of others long schooled in the "realism" of promotion. Casting in his lot with them for the furtherance of what he took to be a common end, he was loath to see what it is certain any thoroughly businesslike man would have seen—that his dream of construction was being repeatedly dashed against impregnable rocks of commercialism and selfishness. When the truth forced itself on him at last it was a rude awakening, as he himself says.

In all fairness it must be remembered that capital has its own viewpoint. It is the prerogative of capital to demand visible results—actual returns—cash items on the right side of the ledgers of investment. This was especially true in the nineties when the enormous commercial growth of the country presaged the greatness of the present decade, and when there was room for capital in numerous branches offering safe and sure margins of profit. The organization of large business corporations and systems of business corporations afforded avenues of investment such as the world had never known before and such as it is doubtful it will ever know again. It may be that one of the serious mistakes of the constructive dreamer, Rockwood, was in going east for financial assistance at a time when the East was full of opportunity while the West was just beginning to awaken and its business men and capitalists just beginning to see the potentilaities of their own territory. The possibilities, had the Imperial Valley project been placed before Los Angeles or San Francisco capital in 1895, can only be surmised.

It must be immediately evident how large was the need of ample finances for this reclamation scheme. Throughout this history the almost pitiful dependence of the settlers on outside capital will be noted. In the beginning of the work there was not only the expense of surveys and construction, but there was a heavy probable burden for colonization. It must not be forgotten that at that time the mere mention of the word "desert" was enough to conjure up pictures of forbidding desolation and hopeless waste. The most stout-hearted quailed before the unknown, and Rockwood had been enough on this sun-beaten plain to know that it would require more than a little "showing" to remove traces of doubt from the mind of the general average of settlers. The latter, also, are always of the poorer class—men, usually, whose capital is the aggregation of small savings, earned by bitter self-denial, and who look long before they leap. From the first it is certain the engineer saw that his backing must be sufficient to safeguard the investments of the colonists, and that comparatively little might be expected in the way of returns for some time after settlement was begun.

Those ideas grew in his mind as time passed and he began to see more and more that John C. Beatty was a promoter and not a constructor. The plan for reclamation, as far as the engineering features went, sprang full-fledged and complete from the brain of Rockwood when he saw the country in 1892, but at that time he had only vague ideas as to just how the scheme might be worked out. He looked to the financial perspicacity of Beatty and it was only as his confidence in that leader waned that he began to think for himself of ways and means.

It was in the fall of 1894 that, returning from Scotland (whither he had gone to interview and, if possible, interest, the holders of an option on the Andrade lands in Baja California through which it would be necessary to carry the canals of the project, but where he had been entirely unsuccessful) Rockwood first discovered positive evidence of the calibre of the promotions of John C. Beatty. The latter was in Providence, surrounded by the luxuries he had bought at the expense of purchasers of stock, and the engineer saw they had come to the parting of their ways. Accordingly he left Beatty to his own devices and went West.

Samuel W. Ferguson, manager of the Kern County Land Company, and formerly a land agent for the Southern Pacific railroad, was the only man Rockwood had in mind at this time to take hold with him. Ferguson had experience in the work of promotion and of dealing in lands with producers and he possessed many of the qualifications needed for an agressive campaign of promotion; accordingly Mr. Rockwood presented his plans to him and the two became associated. The first act of the new coalition was to obtain $5,000 from Dr. W. T. Hefferman, a personal friend of Mr. Rockwood, with which to purchase an option on the lands of General Andrade. When this was done there remained, in order to assure the rights of way of the company from the Colorado river to the international boundary line at the border of the desert, the business of securing the only available site on the river for the location of head-works. This site was owned by Hall Hanlon, an eccentric character, who had

View Near Original Headgate

stumbled on the key to the situation without knowing it, but who, when he had discovered his good fortune, was thoroughly alive to its possibilities for himself. Much to the chagrin of the promoters they found Hanlon obstinate in his demand for $20,000 as the price for his property, and at length, all argument unavailing, they were compelled to acquiesce, and paid $2,000 on the purchase price. This money was also obtained from Dr. Heffer-man, to whom, in the account of the events of those days Mr. Rockwood pays a very high tribute.*

There remained now the task of financing the project—a task which appeared, to these men of high courage, enthusiasm, and energy, only a question of a few months. Perhaps if Engineer Rockwood, in the fall of 1895, could have foreseen the obstacles that lay between him and the fulfillment of his dream, he might have abandoned it and turned again to those avenues continually opening to him, through which he might have sought and found financial success and professional honors. But he could not see: no one but himself can say positively today that he would have forsaken the project even had he known what the future held. His hand was now set to the plow, the furrow was started, and for him there was no turning back.

S. W. Ferguson went to New York in June, 1895, but failed to accomplish anything and came back. It was at this time he mentioned the possibility of securing the services of Anthony H. Heber, of Chicago, agent there for the Kern county corporation of which Ferguson had formerly been manager, and on his recommendation Rockwood, while in Chicago in November attending to the printing by Rand-McNally of maps for the project, approached Mr. Heber on the matter. The latter was interested but no definite arrangement was made until December when Rockwood, then in New York and finding Ferguson's efforts of little avail, sent for the Chicago promoter. Mr. Heber left a good position to go. He told his wife, whom he left with four young children, that he would be gone six months at the outside: it was four years before he returned to stay. From the time of his arrival in New York City he became inseparably connected with the project; its purposes were his, its interests were his, its failures and its successes marked the ebb and flow of his affairs. C. R. Rockwood had rare judgment in technical matters and unusual tenacity of purpose. A. H. Heber had enthusiasm, ambition, confidence, and business ability. The two men who thus joined forces fought shoulder to shoulder practically to the culmination of their plan; that they should have come at last to misunderstanding, mutual distrust and ultimate antagonism is most unfortunate. The cup of friendship they drank together, tasting the bitter lees of disappointment and failure, but when the cup was filled anew with the sweet wine of success it slipped from their grasp and was broken in pieces.

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* Calexico "Chronicle" Annual, May, 1909—Rockwood's Story.

Although without funds, Rockwood, Heber, and Ferguson organized for definite work under the laws of New Jersey, April 26, 1896. The corporation they formed was called the California Development company, was capitalized for $1,250,000, and had as its president Mr. Heber. James C. Beatty, the man who had taken the first interest in the dreams of John C. Beatty, the promoter, was a stockholder in the new corporation by virtue of his former investments, as was Dr. W. T. Hefferman. At the time Engineer Rockwood was in Mexico attending to business connected with the governmental sanction of the project there and before he left received word that President Heber had interested the Menonite church of Kansas, whose leaders would come to the Valley to investigate. Rockwood received the party and showed them the land but negotiations were not entered on. It was on this trip the promoters went to see H. W. Blaisdell, a mining man of Yuma whom Rockwood had met in 1892, and who now undertook to go to Boston in their behalf. He succeeded in interesting W. H. Forbes, formerly president of the Bell Telephone Company, who agreed to take the matter up provided the report made by an engineer of his own choosing should verify the claims of the promoters. Engineer Rockwood gladly agreed to meet any such man and in October, 1896, an expert was sent out. Rockwood was in Los Angeles at the time, negotiating under difficulties with General Andrade for a renewal of his option, which he succeeded in getting only after a struggle. The two engineers met and the Forbes man, George Anderson, of Denver, was enthusiastic over the scheme, but when the two returned to Boston, much to the disappointment and chagrin of Rockwood, Forbes turned the project down. In his story Mr. Rockwood says the capitalist gave ill health as his reason for declining to finance the project, "but," he adds, " . . . I never received proof that the statement given by him was not entirely correct until his death, four months afterward, when I was told by one of his most intimate friends that the real reason why Forbes did not take up the enterprise was that at the time he sent Mr. Anderson to make his examination he also wrote a letter to a close personal friend of his in San Diego regarding the possibilities of development in the Colorado desert, and received word in reply that the project was wild and utterly unfeasible; that the country was so hot that no white man could possibly live in it; that the lands were absolutely barren, consisting of nothing but sand and alkali; and that any man who was foolish enough to put a dollar into that enterprise would surely lose it. I attempted to find out the name of Mr. Forbes' San Diego correspondent. I have been trying all these years to find out the name of that man but so far have failed. I STILL HAVE HOPES TO MEET HIM."

After this blow Blaisdell returned to Arizona, Heber remained in New York striving to interest lethargic capitalists, and Rockwood tarried in Boston. Here he contracted typhoid fever and for two months in the summer of 1897 was confined to a hospital bed. On his recovery he went to Europe for the second time, on this occasion equipped with letters to substantial business men and financiers. The dark cloud that seems, from the first, to have followed this man in his efforts, hovered about him on this journey. Arrived in Scotland he proceeded at once to an inland town to interview a man of importance and on leaving the train asked to be directed on his way. To his consternation he was told the man had been found dead that morning, drowned in a small lake near his mansion. Dazed by this tragedy Rockwood was illy prepared to receive, on his return to London, a telegram from an agent in Basle, Switzerland, saying that a financier there to whom the engineer had wired from Scotland for an appointment had been dead two weeks.

Almost discouraged, but determined to leave no stone unturned, Rockwood secured an audience with Tyndall and Monk, responsible brokers in London, and set them to working on the project; then sailed for New York in December, 1897. Arrived there he opened negotiations with Silas B. Dutcher, president of the Hamilton Trust Company, of Brooklyn, and both he and Mr. Heber bent all their energies to the task of interesting this man and securing his cooperation. For the first time in two years hope began to glimmer on the horizon of the California Development Company. Dutcher was satisfied and succeeded in interesting his heaviest stockholders. After protracted conferences, on the evening of February 14, 1898, Mr. Dutcher told the anxious promoters that the Hamilton people would finance the project. In his simple, but dramatic style Mr. Rockwood tells of the denouement:

"At this time," he writes, "our treasury was empty, both Mr. Heber and myself had exhausted our private funds, and we were exceedingly economical in our table. But I was so rejoiced at the decision of Dutcher and, believing without doubt that our financial troubles were over for the present, I went back to New York and invited Heber out to a square meal, on which, I think, I spent at least one dollar.

"The next morning . . . we were confronted by the glaring headlines THAT THE MAINE HAD BEEN SUNK THE NIGHT PREVIOUS IN HAVANA HARBOR!"

Old Date Palm Trees at the Heading Gave Promise of what the Desert Would Do

The depression of the promoters was shared with the whole financial world for a few months following the declaration of war between Spain and this country, and it was impossible to interest capital in the project. In fact it was difficult to raise money enough to keep the New York offices open, but this was done by means of one sacrifice and another. In this summer, also, Mr. Rockwood was called to Mexico. Legal steps were found necessary to retain the hold of the California Development Company on the lands in Mexico and, as the laws there require that all real property be vested in Mexican owners, the engineer was compelled to organize at this time La Sociedad de Terrenos y Irrigacion de la Baja California (Sociedad Anonima), known in the Imperial Valley as the "Mexican Company." This corporation became owner of all the rights of the company in Mexico, including the option, now nearly expired again, on 100,000 acres belonging to General Andrade of Los Angeles. In order to retain control of this property by option Mr. Rockwood hurried from Mexico to Los Angeles and there, for ninety days, he struggled with the exasperated general. Andrade believed the American was doomed to ultimate defeat and it was only to get rid of him, as he said later, that the General finally signed the papers giving the Development Company an extension of time.

Meantime, in London, Tyndall and Monk had been busy and they now wrote Rockwood to come to England and close a deal. Rockwood hurried across the seas for the third time, to be joined later by President Heber. After long and vexatious delays a satisfactory bond and trust deed was made out, under complicated English procedure, and the two Americans returned with every hope of having at last been successful. For some unknown reason, however, the London firm cabled in February, 1899, that the transaction could not be completed by their clients. Concerning this period Mr. Rockwood, in his history, says:

"We were now in the spring of 1899; our funds were exhausted and we hardly knew which way to turn. I was born in Michigan and had several wealthy and influential friends and acquaintances in Detroit and its neighborhood and Heber and I thought it best that I should visit Detroit and see what might be done there toward obtaining funds. But at this time we had no money with which to pay my traveling expenses until Mr. Heber solved the problem by raising $125 on his personal jewelry and gave me $100 of it with which to make the trip. In the troubles that arose between Mr. Heber and myself afterwards this act has never been forgotten and one of the greatest regrets of my life is that the ties of friendship with one capable of such self-sacrificing generosity should be strained and broken."

Mr. Rockwood did not know then, and probably does not now, the true history of the source from which this money came. As a matter of fact Mr. Heber's personal jewelry had been hypothecated at an earlier date for the good of the common cause and at this time, with ruin confronting them, he appealed to his wife. Mrs. Heber had already denied herself as a woman might who sends her husband to battle and then endures privation to furnish him the sinews of war; but neither her resources nor her faith were exhausted at this trying time. Without hesitation she forwarded her own jewels to her husband bidding him use them as he saw fit if the future of the work might be secured, or even advanced. With much reluctance Mr. Heber carried the ornaments to a friend and received for them the insignificant sum of money on which the whole hopes of the heroic band hinged.

In Detroit no substantial assistance was received and, as he was almost penniless himself, Mr. Rockwood accepted a commission from a Boston firm to go to Porto Rico to perform expert services there. Returning in the fall of 1889 to New York he found S. W. Ferguson in the offices in New York, anxious to return to the service of the California Development Company, with which he had severed connection in September, 1896. Rockwood found President Heber tired out, discouraged and homesick, and accordingly Ferguson was employed as an agent only and Mr. Heber resigned and returned to his family in Chicago after four years of arduous work, culminating always in failure. Rockwood, elected president, remained in New York but it is probable his work there for the next few weeks lacked enthusiasm. Not only had he encountered repeated set-backs of man's contriving but he had apparently been pursued from the first by a Nemesis of misfortune which would have defeated and turned back a weaker man. Sickness, storm, death, even war, had taken their turn at dashing his hopes to the ground. With money gone, associates discouraged and all hopeful prospects blotted out, it is no wonder that, for him, the months of September, October and November, 1899, were black with despair and that he was in a fit mental condition to grasp at any straw when, in December, he received word from Ferguson, in Los Angeles, that their capitalist had been found.

Hastily, although with little hope of success, Rockwood put his maps, profiles, reports and plans into a satchel and boarded the first westbound overland. The man to whom he was going was George Chaffey.

Hundreds of Miles of Canals were Constructed

CHAPTER V

THE ERA OF THE BUILDERS

We have come now to a new era in the affairs of Imperial Valley. In this chapter we have to deal with details regarding which there has been much controversy. This has led to exceptional care in ascertaining facts, and more than 500 documents, including personal letters which passed between the principals in the California Development Company and contracts, agreements, etc., have been examined. Years had gone by in the search for some man with means to carry out the task of actual construction, and while that quest had been on there had been an accumulation of obligations against the project. Not only had the capital stock of the company to the extent of a million dollars passed into private hands, but what was known as land scrip, entitling the holder to payment in water stock, had been issued to the extent of $350,000, while there were $15,000 of other claims against the company, making a total of liabilities of $1,365,000.

There had been an option for the purchase of Hanlon's heading, and another for the purchase of 100,000 acres in Mexico through which the canal must pass, but both these options had expired, and as an offset to the great accumulation of liabilities, there was nothing but the filing on the river and the camp and surveying equipment, and even the filing must be renewed; and with this state of affairs the attorney general of New Jersey had begun suit to cancel the charter of the company for non-payment of its annual tax to the state, and it looked as though the California Development Company would cease to exist as a corporate entity.

February 16, 1900, but a few weeks before the entrance of Mr. Chaffey into the company, Mr. Rockwood had written Mr. Heber:

"I doubt if he (a Mr. Logan) will be sufficiently foot loose to take us up before the first of March. I will probably give him until that time as I will of necessity be here until then anyway, but unless he is ready by that time to get into harness I believe that I will be obliged to drop him, and probably seek some other means of earning a livelihood, as I can't hold on any longer without greater help than I have been able to obtain. The state of New Jersey has postponed their application for an injunction until the 20th of March. This they state is a temporary postponement while they are considering our application for a postponement until the first of July. I think without much doubt that they will give us until the first of July, and unless something turns up by that time we will probably have to allow the organization to go by the board. I am not sure that it would affect us so very disastrously, because I am advised by Ropollo that if the charter is rescinded that the Board of Directors will hold a meeting as trustees for the benefit of the stockholders and creditors of the Company. If that is the case why it would probably allow us to perfect a new organization at some future time and pass the property on to it, providing that we can get the property, and that depends upon our ability to pay the cost of legalizing those contracts in Mexico. I have taken the matter up with Mr. Beatty to try to get him to advance the money, but do not anticipate any success from that source as I think he is fully determined not to put another dollar in the enterprise under any consideration.'

Eight days later Mr. Rockwood wrote again to Mr. Heber:

"I am very glad indeed to see that you are so hopeful and that your prospects are brighter than they have been during the past two or three years. I feel very much inclined to jump this whole business and go into something else, but will stick to it for a month yet and see if I can't bring something to a head through Logan, but it is a pretty heavy burden to carry, as you well know."

This condition of affairs was surely not an alluring one, but the records of the company were in New Jersey, Mr. Chaffey was not familiar with the history of the company and was not made acquainted with its financial status. As a skilled and experienced irrigation engineer he examined critically into the venture, passing several days alone on the route of the proposed canal and discovering the possibility of greater economy than had appeared in previous plans by using a number of natural channels leading by easy grade from one to another. Before that it had been estimated that a million dollars would be required to construct the system, and he was delighted to discover that it could be built for a fraction of that amount because of the assistance nature had provided.

Mr. Chaffey was a man splendidly equipped for the task presented. Born in Brockville, Ontario, in 1848, he had been compelled to leave school by ill health at the age of fourteen, and had gone to work for an uncle who was a prominent contracting engineer.

Later joining his father in the steamship business, young Chaffey became captain of several vessels and secured a first class engineer's certificate.

In 1878 Chaffey designed and constructed the lake steamer Geneva which so exceeded in speed vessels of like draught that he won wide recognition in ship building.

In 1879 his parents having removed to Riverside, California, Mr. Chaffey came here to visit them and became so greatly interested in the country that he decided to remain.

In 1881, with his brother, W. B. Chaffey, he bought the Garcia ranch and founded the colony of Etiwanda, developing his first irrigation supply in the mountains.

C. R. Lockwood and C. N. Perry were in charge of company headquarters at Calexico

In outlining the plans for this colony, in combination with L. M. Holt, Mr. Chaffey devised the mutual water company which has become a model for all Southern California.

In 1882 he designed a small power plant in connection with the Etiwanda irrigation system to run a dynamo, and thus turned the current on the first electric lamp used in Southern California, and in the same year he installed in Los Angeles one of the very first electric systems 'n the world for street lighting.

Still in the same year, Chaffey bought a portion of the Cucamonga rancho and founded the colony of Ontario, originating and endowing Chaffey college. Here he developed an irrigation and electric power system that was later adopted by the United States government as a model to be exhibited in miniature at the St. Louis exposition.

In 1885 a royal commission appointed by the government of Victoria, Australia, visited California, and the members became so interested in Mr. Chaffey's work that the visit led to his going to the island continent, where he built great desert reclamation works, founding the colonies of Mildura, in Victoria, and Renmark, in South Australia.

As a result of the mechanical plans designed for pumping water for these great irrigation works, Mr. Chaffey was elected a member of the Institute of Mechanical Engineers of London.

In this work in Australia Mr. Chaffey had again been associated with his brother, and as late as the fall of 1907 the Chief Justice of Victoria, Sir John Madden, in a public address tendered to the Messrs. Chaffey "on behalf of Victoria, sincere and heartfelt thanks for their magnificent conception and achievement."

His great work in Australia completed, George Chaffey had returned to the United States, and he had soon been induced to look into the Imperial irrigation project. He saw here what he believed to be the greatest opportunity ever presented for reclamation work. Familiar with the redemption of desolate country the great waste of the Colorado desert rather charmed than repelled him. It was the physical problem that he weighed, without investigation of the financial condition of the company with which he was to become allied, though the contract into which he entered provided that water stock should be sold to the extent of 50,000 acres before he should be required to begin construction of the canals. This was the contract, but Mr. Chaffey at once plunged into the work of construction of canals, relying in large part on the revenue from the sa'e of water stock for funds with which to continue operations.

How seriously he was to be hampered became apparent in the course of a few weeks. He soon discovered that it was necessary to make a new deal for possession of Hanlon's heading and to regain an option on the 100,000 acres of land in Mexico on which the expired option rested. These two points were eventually accomplished with much difficulty and expense, and the work of construction once more proceeded. Then there came into view the $350,000 of scrip outstanding, the very first sale of water stock under the new canal being paid for with this scrip, where Mr. Chaffey had counted on the receipt of cash, and from that time on this scrip was rising before him to annul his plans for raising funds by colonization along the canals as constructed.

These statements are not set forth in criticism of any person who has had a part in the development of the Valley. They are recorded simply as facts which must be taken into consideration in judging the merits of those who have wrought out the destiny of the Valley. Those who came before Mr. Chaffey had been obliged to play a desperate game. They had handed out the water scrip on a basis of ten cents on the dollar, and now he who was to build, and who had not been cognizant of conditions before he set his hand to the task, found himself confronted with the necessity for redeeming these pledges at their face value, and in meeting this necessity he was hampered at every turn and often grew despondent. People have often wondered why there was not greater profit for the promoters of the California Development Company, and the answer is mainly to be found in the necessity of taking care of obligations incurred in the days when the quest for a builder was on.

The contract under which Mr. Chaffey assumed control of the California Development Company nominally placed in his control absolute authority over the company for five years, giving him irrevocable power of attorney for the majority of the stock for that period, but in point of fact his hold on the company was not so great, for stock was not placed in escrow, and when transferred by the owner, the power of attorney did not necessarily follow it. It was April 3, 1900, that the contract with Mr. Chaffey was entered into, and the rapidity with which the work was done brought water into Imperial Valley in twelve months. A telegram from Mr. Chaffey to his son and business associate, A. M. Chaffey, carried at that time a message important, not only to the Chaffey's, but to the settlers and friends of Imperial Valley. It read:

"Ogilby, Cal., May 14, 1901.

"A. M. Chaffey, 244 Stowell Block, Los Angeles.—Water turned through gate at 11 a. m. Everything all right.

[Sig.] George Chaffey."

The connection of George Chaffey was brief, compared with his accomplishments during the period. It was but twenty-two months from the date of his contract when, in February,

Cucopa Indians joined in celebration of the Fourth of July in Calexico in 1901

1902, negotiations were consummated for his retirement, and yet, in that brief period, there had been actually constructed more than 400 miles of canals and laterals, or about one-half of the mileage in the Valley when this work is written in 1910.

The year 1901 had begun with the world knowing nothing of Imperial Valley by name, though the Colorado desert was famous. But during that year and the next an almost incredible amount of publicity was given to the great irrigation development work in progress here, such publications as the New York Times, Tribune and Post, the Philadelphia Press and Scientific American, with many agricultural publications, giving pages of news space to the enterprise and making editorial comment.

Thus the year 1902 drew to a close with Imperial Valley well known throughout the country, and 1901 and 1902 long will be remembered as the years of the builder—the years when out of vague ambitions Imperial Valley took form as one of the greatest factors in the industrial activity of the Golden State, and however great credit may be accorded to others for big achievements in other years, it is to George Chaffey that credit must chiefly be given for that greatest period of all.

In fact there are six persons who must ever stand out as central figures in the history of Imperial Valley:

C. R. Rockwood, the man who clung to a fond hope for years while searching for the real builder.

George Chaffey, the man who built.

The late A. H. Heber, associated with Mr. Rockwood in the earlier days and with the company during its more prosperous period but destined, as the successor of Mr. Chaffey, to bear the brunt of leadership in the trying days that followed when representatives of the government falsely denounced the soil, denied the right of the people to use the water of the Colorado and by various attacks destroyed the financial credit of the company and forced upon the Valley the neglect from which all its greater misfortunes have come.

And, finally, the late Edward H. Harriman, president of the Southern Pacific Company; Col. Epes Randolph, his personal representative, and H. T. Cory, general manager of the California Development Company during the Southern Pacific dominance, these being the men to whom chief credit must be given for shutting the Colorado river out of the Valley.

Sentimental praise must go to the man who clung on to his hope through forbidding years.

A feeling of pathos must be awakened by the heroic struggle of the man assailed and beaten by the very governmental forces that should have aided him in the work of redeeming the desert.

Praise must be bestowed on the big railroad men who threw their personality into the conquest of the river.

But in each case the personality is different from that of the man who after others had talked of the possibility of the project for fifty years actually bought a dredger and began digging the canal, who rushed in men and teams and supplies against great obstacles, who gashed the desert plains with great life-giving arteries of the soil, who, in less than two years made main canals with sufficient capacity for all the previously irrigated area of Southern California, who run hundreds of miles of minor ditches, who started the crops to growing, staked out the cities yet to be and mapped the empire that was to rise upon the desolate wastes of the old forbidding desert.

Without being guilty of hero worship, we can mention the names of each of these men with praise. Mr. Rockwood was for a time engineer in charge of construction in water district No. 1 under Mr. Chaffey, and there was a colonization agency formed, for Mr. Chaffey did not wish to have his mind diverted from the construction work.

In March, 1900, the Imperial Land Company was organized. In return for its services as a colonization agency, this corporation was to receive 25 per cent of the gross sales of water stock in the United States and of land in Mexico, was to have all the townsite rights and was invested with all rights to power light, telephone, railroad and other similiar franchises throughout the Valley. In the promotion of colonization through this and other companies, the conspicuous figures have been F. C. Paulin, H. C. Oakley, Dr. J. W. Oakley, and, later, W. F. Holt, George A. Parkyns, George P. Blair and others.

The financial difficulties which beset the California Development Company during its entire career were not missing during the Chaffey regime. Mr. Chaffey had himself put a considerable sum into the enterprise, and when the situation grew serious he had pledged the notes held by the company and all his personal possessions as additional security for further funds with which to carry on the work. And herein lies an illustration of the policy pursued toward Imperial Valley by the Los Angeles bankers from the start. Not only would they not accept Valley securities, but they curtailed or cancelled personal credits previously enjoyed by Messrs. Chaffey.

The prevailing impression that Mr. Chaffey had made a fortune out of proportion to his services to the company is not justified by the financial statement issued five months after his connection with the company had terminated.

When Mr. Chaffey assumed the management of the company, as has been seen, its liabilities amounted to $1,365,000, the assets consisting of an expired option on the heading, an expired option on the Mexican land, a water filing about to expire, and the camp and survey equipment.

In striking contrast with this is the financial statement of the company of date of May 31, 1902, and shows bills receivable of $525,510; accounts receivable of $235,469.34 and other assets bringing the total to $2,333,469.35, while the liabilities, including stock at $1,250,000, aggregated $1,990,993.19, giving a surplus of $342,687.16.

The situation which Mr. Heber faced on succeeding Mr. Chaffey would have been an easy one had it not been that the opposition of the government to the reclamation of the desert by these financiers became militant, and the onslaughts ruined the credit which the company had at last begun to develop and at the same time checked colonization.

C. J. Schenck Opened the First Store in Holtville

CHAPTER VI

THE BEGINNING OF SETTLEMENT

An aggressive campaign of publicity made by officers and agents of the Imperial Land Company in the first few months of its existence in 1900 resulted in a rather remarkable influx of prospective settlers before the hot weather of that year. Excursions were run from Los Angeles and near by points to Flowing Well, and thence by stage into the Promised Land. Many came in from the railroad points in Arizona, and a large number drove across from San Diego and its environs to see this desert where daring men proposed to do the impossible. In April of that year Surveyor C. N. Perry had begun his work of surveying the district and of running lines for the canal system of Number One Water Company, and shortly after the California Development Company established a camp on the east shore of Blue Lake, where the town of Silsbee stands today, to which camp Mr. Perry and his men went for supplies.

The stage of those early days was the property of George McCaulley, who had a station at Flowing Well, on the main line of the Southern Pacific railroad, a few miles east of the stop known as Old Beach—the Imperial Junction of later times. McCaulley was a quaint and interesting character, possessing little fear either of man or Superman, and with positive ideas of his own such as are usually to be found in those typical westerners of the old school, now fast disappearing. They used to tell a story of George that is so eloquent of his characteristics that we give it without comment. McCaulley had several teams at Flowing Well which he hired out, with drivers, to such persons as did not want to go by stage, and on one occasion a very pious couple came down from Los Angeles and engaged one of these teams and a wagon to take them to Cameron Lake. No extra driver was on hand and at their solicitation McCaulley himself agreed to go with them. On the way back a terrible wind storm blew up, one of those storms that in the unirrigated days literally engulfed everything in clouds of impenetrable dust and the driver lost his way. After wandering about in the sand dunes until the horses were well nigh exhausted and the three passengers choking with thirst and the sand in their throats and nostrils the elderly woman clutched McCaulley's arm and said:

"Mr. Driver, if you'll stop I shall get out beside the carriage and pray for deliverance."

The old-timer was not very well posted on the efficacy of prayer, but he drove the team into the lee of a particularly large sand hill and stopped obligingly. The elderly woman clambered down, dropped on her knees and offered up a long and earnest prayer for divine guidance from the labyrinth in which they found themselves, then rose solemnly and climbed in again. McCaulley sat a minute without moving and suddenly the wind began to die away, the clouds of dust passed and once more the passengers could see the heads of the horses. As the driver started the good woman leaned over and said:

"Sir, what do you think of that?"

McCaulley was at a loss for an answer and, taking advantage of the calm turned his team toward what he thought was the road, rounding the corner of the sand hill just in time to meet—full in the face—a wind renewed by ten times in strength and ferocity. The rig was almost upset, the elderly lady's bonnet was swept away and eyes, ears and mouths were filled with the dust that blew in thick sheets. George spat out a mouthful of desert sand, pulled his handkerchief closer around his neck and stopped the team. With a most lugubrious face he turned to the pious old lady and in all seriousness shouted to her with an oath above the roar of the storm:

"Pardon me, madam, but what do YOU think of THAT?"

P. J. Storms, of Silsbee, was one of the first permanent residents to reach the Valley. Mr. Storms tells an interesting story of the first fall elections in 1900 and his letter to the editors is given here. He says: "I arrived here on the desert August 1, 1900. The annual overflow from the Colorado had just subsided and there were thousands of heads of cattle and horses grazing on the thousands of acres of grass that had been brought up by the overflow. Among the men who had stock grazing in the Valley then were Andy Elliott, Tom McKane, Frank Webb, Nat Millard, Bruce Casebier, Bob McKane, Wash Lawrence, Arthur Ewens, Thomas Silsbee and Charles Hook . . . . . In the

The First School in the Valley was Started in an Arrowweed Ramada by the Side of the Main Canal fall of 1900 the only voting precinct was that of Blue Lake with ten voters on the rolls: A. J. Elliott, Arthur Ewens, Fred Hall, William Huitt, W. Wilkins, Thomas Silsbee, A. N. Jones, William Harris, Peter Larsen and myself. As this was a part of San Diego county at that time and we were so far from the county seat, 40 miles by stage and thence almost 300 miles by rail, our election supplies, ballot box, and so forth, did not arrive for several days after election day. Imagine the disappointment, as we were all anxious to vote straight for James A. Jasper for supervisor. Luckily he was elected without our assistance."

The picture of those ten patriots, torn by their anxiety to aid their candidate, left high and dry by the failure of their mail service is one to conjure with.

Truly these days were of the pioneers! Probably not more than a score of persons spent the summer of 1900 or any considerable part of it in the Valley, and these were mostly workers employed in the preliminary details of organization. At this time the only water to be had for household and drinking purposes in that part of the desert which we must, from this time forward, refer to as the Imperial Valley, since it had been christened ere this, was in the lakes filled in May and June by the overflow of the Colorado into those sloughs and channels drained to the north by New River and Salton, or Alamo rivers. The southernmost of these lakes was Cameron, a short distance west of the present site of Calexico, Blue Lake, where Silsbee now stands, and Pelican, Bull-head, Swimming Hole, Badger, Diamond and Long lakes west of New River. There were also several water holes along the courses of the two rivers that were filled when water was in the rivers and that remained full for varying lengths of time thereafter. It was from one of these water holes that the town of Imperial drew its water for several months after organization and from another, eight miles east in the Alamo channel, that a number of ranchers around McKim's provided themselves.

The demand for a point of supply for the large numbers of persons who began to come in to look for land in the fall of 1900 made it necessary for the Imperial Land Company to stake out townsites and this they did in October, locating the present towns of Imperial, Brawley, Calexico, Heber and Silsbee.

Imperial was located in the geographical center of the irrigated area and was designed to be the chief town of the valley. Brawley was to the north, Heber to the south, Calexico on the international line and Silsbee to the southwest. All were finely situated to develop trade, and later to these towns there was added Holtville and El Centro.

The first general merchandise store in Imperial was erected and stocked by Dr. W. T. Hefferman, late in 1900, a tent hotel was built and opened by Millard F. Hudson, the Christian Church was built early next year and a printing office followed. These were the only structures of wood in the valley until the fall of 1901.

With a point of entry established at Flowing Well, where a hotel was maintained, and a point of supply at Imperial, the influx of persons seeking land was largely increased and the Imperial Land Company did a flourishing business. W. F. Holt, who had been in the banking business in Arizona, whose work in the Valley is described in another place, constructed a telephone line connecting Imperial and the telegraph station at Flowing Well, and several new industries were established in Imperial. Meantime work on the canal system, begun in early fall, was going forward as rapidly as possible with the limited funds available and hundreds of acres of land were being taken up every month.

The vital part played by women in the making of this Valley really deserves a volume by itself. Let it be understood that the hardships described, the struggles recounted and the achievements recorded throughout this history concern a heroic and noble band of women even more than that larger army of men, some of whom are named in these pages. Being less fitted for pioneering their work has been the more remarkable and to the end of history it will be a matter of congratulation to the district that, from the first, its daily life was moulded and blessed by the company of devoted wives, mothers, sisters and sweethearts who stood shoulder to shoulder with the men. Without them the reclamation of the Colorado desert might have been possible, but it would not have been a fact.

In a graceful and charming paper read before an assemblage of club women in Imperial in April, 1910, Mrs. Leroy Holt, a real pioneer, told something of the life of the early days. So valuable is her contribution to the history of the Valley that a condensation of that paper is given. Mr. Holt, now president of several banks in the district, came to the town of Imperial in the early part of 1901 and Mrs. Holt determined to visit him there. On June 28th of that year, with a baby in her arms, she arrived at the Southern Pacific station of Flowing Well prepared to enter

Great Crops of Egyptian and Kaffir Corn First Proved the Quality of the Soil the Valley. She tells of the experience thus: "We started from Flowing Well, six passengers in a stage coach—not the Concord coach, but an ordinary wagon, with canvas cover. The driver's seat was elevated to about ten feet in the air and was shaded by a huge umbrella. The owner of the coach suggested that it would be better for me to ride on the seat with the driver. I did so and found I suffered less with the dust than those inside. I was the only woman passenger and accompanied by a baby—hence the seat of honor. When we reached the Salton we found there barrels of water left by the freighters. They had to carry water for the horses, as there was not a drop otherwise on the entire route between the station and Imperial. There was a lone mesquite tree called 'The Fifteen Mile Tree' (because it stood at about that distance up the Valley from the railroad) and here the sack of mail was hung up for the Bothwell camp on the East-side, and I never heard of Uncle Sam being robbed. It was an all-day trip and the poor horses seemed almost exhausted by three o'clock, and we did not reach Imperial until after five o'clock . . . There were only two men in sight—my husband and Henry Reid, the editor of the Imperial Press, the first newspaper in the Imperial Valley. The inscription at the top of the paper read: 'Water is King: Here Is Its Kingdom' . . . My next visit to Imperial was September of the same year . . . This time I came to stay and am still staying. There was only a canvas hotel, the printing office building, the church, one storeroom and a little building 10x12 used as an office room by the Imperial Land Company. . . The Chinaman at the hotel was the monarch of all he surveyed. There was no landlady to keep me company and the only woman I saw at the hotel came in on the stage to take up land and immediately went away. Mrs. Reid, her mother Mrs. Frost, and I were the only women in Imperial and for miles around . . . We did not have telegraph communication in the early days and in company with others I have stood beside the track at Old Beach and waited expectantly every minute for the train from 4:30 in the morning until 4 in the afternoon. Imperial Junction of today holds no terrors for me . . . We commenced housekeeping this time in a tent house. It was a novel experience . . . The winds blew sometimes for days without ceasing, and the sand storms were blinding at times. We occasionally had to go hungry and wear our coats all day to keep warm. Our stove pipe would blow away and a neighbor would get on our pony and run it down and bring it back. The canal traversed the town from southwest to northeast and anything that blew into the canal was gone; so we always made a run for the stove pipe. I remember one Sunday when we did not have breakfast, luncheon or dinner. The dust was so thick that we could not eat in the tent-house. At half past eight the wind ceased its fury and we took our canned food and went to the house of our neighbors, Mr. and Mrs. L. C. Vickrey. They boasted the only frame residence in town and there we ate for all day. I had kept the children in bed fully dressed so if the tent-house should blow down they would be properly clothed. I kept my coat and bonnet on all day. Why did we stay? We loved the days that were not windy and dusty; we loved the bigness of our surroundings. We never felt hemmed in; we never felt lonely or homesick. I remember very well the first night I sleptout of doors. The stars appeared so near it seemed to me I could almost reach up and pluck them from the sky . . . We had the blessed privilege of helping with the first church service ever held in Imperial church. Rev. John C. Hay was the pastor. The congregation numbered six persons: W. F. Holt and my husband, two strangers, and a lady from Redlands and myself. The Sunday School had three scholars that morning—Jessie and Jim (Holt) and my little niece Katherine Holt, of Redlands. She was visiting the children for a few days and stayed over to attend Sunday School that morning . . . In the evening the Chinaman (cook at the hotel) again came to the front. He came over to church that night and I never shall forget how Charlie sang 'Onwald Chlistian Sojers.' Jessie and Jim (Holt) were the first children to live in Imperial, and Ruth Reid was the first baby born here."

Here is a brief recital of scattered incidents, and yet how eloquent it is of the hardships of those early days, especially for women and children! Today it is hard to realize what they went through; it remains for us to know that they did it all uncomplainingly, hardily and to the great good of the community at large.

One more interesting sketch of those days is at hand. It comes from Mr. Reid who is referred to above as the first editor in the Valley. He was editor of the Press from May until October, 1901, when he was succeeded by Edgar F. Howe and part of his communication follows: "If you will remove from the townsite

After Inspecting the Valley Homeseekers Took Back with Them on the Stage Proof of the Richness of the Soil of Imperial every conceivable building which you now boast, then place upon the site now occupied by the Imperial Land Company block (formerly that of the Citizens Bank) a tent rooming house; . . . place upon the present site of the Hotel Imperial two large rooms also built of canvas, which served as a kitchen and dining room; upon the site now occupied by the New York store a small frame structure which was occupied by Dr. Hefferman with a stock of everything that people would be likely to demand in the way of canned provisions and kindred wares; and upon the block bounded by Eighth and Ninth streets and by J and K avenues place a corral and feed yard, constructed of rough posts and covered with brush and you will have a very accurate picture of the city of Imperial when we first saw it in the early part of March, 1901. Material was on the ground for the erection of the home of the Imperial Press, together with living apartments for the editor and his family and through the untiring efforts of a jolly good bunch of 'mechanics' led by W. F. Holt the Press building was very soon a reality. Leroy Holt, president of the First National Bank of Imperial, was also active in the construction of this building. In fact it was he who nailed the larger portion of the shakes upon the roof. The foundation and floor being in place, the printing machinery was set up and the walls and roof were built around while the first edition of the Imperial Press was put into type and made ready for its debut . . . Our neighbors were very few indeed during the first summer. The fixed population of the desert city was made up of less than a dozen souls including Leroy Holt, A. W. Patton, H. C. Reid, Mrs. Reid and her mother, and Chinese Charley (Charley Nun) who was host at the hotel . . . There were many who divided their time between the Valley and their homes on the outside, including W. F. Holt, F. C. Paulin, H. C. Oakley, I. W. Gleason, Frank Chaplin, J. B. Parasette and others who later joined the pioneers. We also had frequent visits from T. P. Banta, the Van Horn brothers, Mr. Gillette, and others who were located farther south."

One of the most picturesque characters of those early days was the freighter with his long string-team of mules who carried in to the settlement everything the people used. The growth of the use of automobiles and traction engines is fast displacing this character throughout the country and it will probably never again be the case that a great prospective farming district will be served, even for a short time, by this slow, picturesque and out-of-fashion means of transportation.

Preliminary work, looking to the sowing of seed under the irrigation system was not done to any extent until late in the spring of 1901 because it was then impossible to say just when water would be delivered by the California Development Company. The latter was successful, about June of that year, in bringing a small stream of water to a temporary head ditch near the boundary line and great was the excitement and enthusiasm in both the settlement at Blue Lake (from which, before this, the headquarters of the Development Company had been removed to Imperial,) and at Imperial. In fact such was the glee at this important event that Henry C. Reed, the new editor of the first newspaper in the Imperial Valley, which had been launched a few weeks previously, plunged into the subject editorially under a scare-head, ending his panygeric with these words: "Imagine how pleasing to the eye the green fields surrounded by a barren waste will be to the eye."

With this water, which was to have such a redundantly satisfactory effect on the eye, several crops of sorghum, milo maize, wheat and barley were irrigated that summer about Cameron and Blue lakes, and that same summer T. P. Banta experimented with cantaloupes with marvelous results, while the California Development Company drilled in a few rows of Egyptian cotton seed at the request of the government, to be rewarded with a showing that caused the government bureau some doubt that its officials were in their right minds. Wherever water could be gotten on to the land vegetable life resulted of such luxuriant growth, heavy bearing and excellent quality as to surpass the hopes, even, of the promoters of the enterprise, and hundreds came to see with their own eyes that which had been told them.

In May a postoffice was established at Imperial with Dr. Hefferman as postmaster; in August Prof. J. E. Carr arrived from Nevada City to take the first public school in the district. These two facts speak eloquently of the sort of progress made up to that time by the settlements. Prof. Carr's school was built probably more quickly than any of its capacity in the history of this country, perhaps of the world. It was decided to place it in the center of population which at that time was about ten miles south of Imperial and the spot chosen was on the bank of the main canal, just south of where Heber stands today. The night before school was to be opened, or September 8th, Prof. Carr and two others drove to the appointed spot, and erected a tent. Adjoining it, in probably an hour, they built the school house—an arrow-weed ramada supported by eight poles. In this rude shelter 50 pupils the next day enrolled, many of them walking four or five miles and continuing to do this throughout the school year. It was not until the next spring that the district was divided in two and frame buildings erected.

The great heat of summer time was past and with October came increasing population. Water was promised within a few weeks then and great plans were being made for extensive planting of crops. In the previous spring the Imperial Land Company had arranged an excursion for the entertainment of the Southern California Editorial Association, and in April a party of newspapermen, mainly the editors of country papers, journeyed through the district by stage. The publicity they gave the work of development here had a great deal to do with the increase in immigration throughout the whole year and their visit was made so pleasant and profitable that for years thereafter many of those newspapermen remained staunch and loyal friends of the project—many of them in times when it needed friends.

Such was the Irrigation System as it Came From the Builders

By the first of December, 1901, some 78,000 acres of land had been filed on in the Los Angeles Land Office, 30,000 of which had been covered with water stock. Of this amount of land work looking to actual reclamation was being done on probably 8,000, while formal proof work was begun on more than half of it.

Water was available for use of several hundred acres in the southern end of the Valley and land holders elsewhere in Number One water company district were advised that the system would be completed for their use early in 1902, so that many turned in that winter to prepare the ground. Bountiful yields where planting had been done, luxuriant growth of practically every vegetable, plant, fruit, tree and grain known to man, and astonishing fertility throughout the proven area, caused the greatest enthusiasm and the highest hopes. In the spring of 1902 there seemed no cloud on the horizon of the settlers in this new district and very few (so far as the public knew) on that of the long-tried and unhappy Development Company.

It was about this time that the government announced the early issuance of a pamphlet containing a report of the findings of a soil expert in an investigation of the soils of the Valley. This report was eagerly awaited by settlers and prospective settlers, because it was believed that it would cast a great deal of light on the question of how extensive were the reported alkaline deposits throughout the district.

The famous *"Circular No. 9" came like a prostrating blow. Among other showings—many of them so complicated and technical as to be unintelligible to the ordinary reader—there stood out several bald and unverified statements, of which the following are samples:

(P. 13) "The soil analyses show five grades of soil as to alkali content:

Grade of soil	Acres	Per cent of the area
From 0 to 0.2 per cent	42,220	39.1
From 0.2 to 0.4 per cent	25,320	23.4
From 0.4 to 0.6 per cent	23,040	21.3
From 0.6 to 1 per cent	5,220	4.8
Over 1 per cent	12,300	11.4

"These grades represent the average for the surface 6 feet, tests having been made for each foot in depth and the arithmetical mean taken. The 0 to 0.2 per cent grade is soil that is practically free from alkali. No crops but the most sensitive would be injured by this percentage. Almost all common crops will withstand from 0.2 per cent to 0.4 per cent. Alfalfa will barely grow in the 0.4 to 0.6 per cent soil, even when well matured. If once a stand is secured it will struggle along. Barley will pro-

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* "U. S. Dept. of Agriculture—Bureau of Soils, Circular No. 9," (1902).

duce a crop, though not first class. All land that contains more than 0.6 per cent of alkali must be handled very carefully to produce any kind of crops except the most alkali resistant. Careful and proper methods of cultivation may result in washing enough of the surface 2 or 3 feet into the sub-soil so that shallow-rooted crops, such as annuals, can be grown. But until this surface reclamation takes place only such crops as sorghum, date palms, and sugar beets can be grown. On all the soils that contain more than 1 per cent of alkali date palms and saltbushes are the only crops that will thrive."

(P. 14) "Aside from the alkali, which renders part of the soil practically worthless, some of the land is so rough from gullies or sand dunes that the expense of leveling it is greater than warranted by its value. In the 108,000 acres surveyed, 29,840 acres, or 27.7 per cent, are sand dunes and rough land. Of the total area level enough to permit profitable cultivation, 17 per cent contains less than 0.20 per cent of alkali and 32 per cent contains from 0.20 per cent to 0.40 per cent. The remainder of the level land, or 51 per cent, contains too much alkali to be safe, except for resistant crops."

(P. 16) "One hundred and twenty-five thousand acres of land have already been taken up by prospective settlers, many of whom talk of planting crops which it will be absolutely impossible to grow. They must early find that it is useless to attempt their growth. On the bad alkali lands they should try to grow only crops suited to such lands. Test plots will be of very little value except for the year in which they are made. The land may produce a crop for a year, or even two years, and then, having become thoroughly saturated, the alkali will rise and kill the crops. For the worst lands the best thing to do will be to immediately abandon them."

The Making of Brick Began Early

(P. 17) "The claims for the fertility of this country are based upon the experience gained from irrigation along the Colorado River below Yuma. An examination of the country reveals the fact that the conditions below Yuma are very different from those

In 1903 the Growing Fame of the Valley Led to a Tour Being Made by the Southern California Editorial Association in the Imperial area, and the agriculture of the two areas is not comparable. The soils of the bottom lands below Yuma are lighter in texture, more pervious to water, contain less alkali, and are, many of them, well adapted to alfalfa."

The wide-spread circulation of this report had a far more dire effect in the spring and summer of 1902 than might at first be supposed possible. Not only did it frighten away prospective settlers and discourage many already in the district, but it undermined the stability of the California Development Company very materially and caused financial men to look askance at the offerings of that corporation. The public at large were led to conclude from their reading that the project in the Imperial Valley was hopelessly doomed and hundreds of newspapers seized on the opportunity to make a "story."

Luckily not all editors were entirely convinced by this blighting report.

Isaac J. Frazier, in the Oceanside "Blade," under the caption "Alka-lie Report" wagged a merry finger at the episode thus:

"The exaggerated report regarding alkali at Imperial calls to mind the Los Nietos farmer who, when interrogated regarding certain white spots on his productive acres, answered, 'Yes, it looks like alkali, and tastes like alkali; in fact, is alkali, but on land that has raised a large family, lifted a big mortgage, and paid the taxes, it's only frosting on the pound cake of plenty.'

"Your scribe is no alkali expert, but he has served an apprenticeship prying pumpkins off 'alkali spots' in the aforesaid Los Nietos; he has also seen five tons of sorghum raised to the acre at Imperial, and pig-weed as big as a government expert's imagination; he played the role of Doubting Thomas in 1873 when Riverside colony was a 'quien sabe' question; and although it hampered the colony some we must admit that Riverside has survived."

Many like the "Blade" refused to be quite convinced. The tilling of the soil continued, work on the water system was pushed as rapidly as possible and every effort was made by the promoters of the enterprise to keep it moving forward. As far as the settlers knew the soil report was the only rock of stumbling and their faith in the promises of an early delivery of water was undisturbed. To those already located there was no cause for alarm and their industry never flagged. As a result the commercial prosperity of Imperial increased, Calexico was organized as a point of supply, railroads to San Diego and Flowing Wells were talked of as imminent certainties, and by their very confidence the settlers themselves became a strong advertisement to the outside world of the security of the enterprise.

Years later, Thomas Means, chief of the bureau of soils, visited Egypt, saw the same soil conditions as in Imperial Valley and coyly remarked that American soil experts would be obliged to correct their theories.

But there was a storm brewing. A. H. Heber had returned to the company and taken the place at the head of the Imperial Land Company made by the resignation of S. W. Ferguson.

Since the construction of the canals had been making great headway colonists had been pouring into the Valley and a large amount of water stock had been issued, part being paid for with scrip and another part being purchased with small cash payment and the remainder in notes covering a series of years. In solving the financial problems it had become the practice of the company to dispose of securities at 50 cents on the dollar where possible, though the Los Angeles bankers would not touch them at any price. Some of the securities were sold for 50 cents on the dollar long after the Chaffeys retired. To

Town Lot Auctions Held Forth for a Brief Time facilitate the disposal of these securities, the Delta Investment Company was organized, all the prominent stockholders of the California Development Company being parties to the organization. This new organization took over a large amount of securities at the prevailing discount.

There had been growing up a feeling of antagonism between the original stockholders and Messrs. Chaffey, the latter feeling that they had given to the property all the value it possessed and that other stockholders were not rendering the assistance in financing the enterprise that was desirable. This difference led up to the payment to Messrs. Chaffey of $300,000 for their interest, whereupon they retired from the company. Mr. Chaffey's sole compensation, other than salary, consisted of one-quarter of the capital stock of the California Development Company, and he therefore not only gave full value to the land scrip, which had been sold for 10 cents on the dollar, but for every dollar he made for himself he made three dollars for the other stockholders of the company.

The Lonely Irrigator is at Times Suggestive of the Famous Picture of the Angelus

CHAPTER VII

THE VALLEY

It can scarcely be said of the Imperial Valley at the middle of the summer of 1902 that it was longer a desert. Water was in the ditches, seeds were in the ground, green was becoming abundant, and the whole area was dotted with the homes of hopeful, industrious, devoted persons. The days of beginnings were past and so it may be timely to leave them toiling there at their task of reclamation and visit the district to see what manner of place it is. It is to be hoped that not all who scan these pages are residents of the Valley, or indeed have even been there: we could desire for this history a larger circulation in time to come. Therefore, for a few pages, we will look into the district as persons might who had come a long way to see it and beheld it here for the first time.

Face the north and hold your left hand before you, palm uppermost, and slightly cupped. If your fingers and thumb are held together as you sit so you will have before you a very fair relief map of the Imperial Valley. The fingers will represent the Chuckawalla, or Chocolate range of mountains fringing the desert on the north and northeast, your thumb will represent the Coast range and the Santa Rosa mountains, with San Jacinto, San Bernardino and San Gorgonio (Old Greyback) about at the end of your thumb. Then the very palm of your hand is the Imperial Valley with the Salton Sea of the present day on the "mount" at the base of the first finger. If the lines of your hand are marked perhaps you can imagine that one known to palmists as the "life" line is the course of New River. The Alamo channel runs in a generally northwesterly direction, starting at the southeast corner.

As the palm of the hand, so are the general slopes of the Valley. With a great river flowing near at an altitude 50 feet above sea level where the floor of the Valley ranges in altitude from sea level down to 150 feet below it is easy to see the possibilities for irrigation the early engineers saw. A railroad line crossed the desert, practically bounding the Valley on the northeast with its rails, and a ready market for all produce was thus assured. Although little was known at first of the absolute fertility of the soil the earliest comers were impressed with this; and the combination of desert heat, water-carrying land-enriching silt, and a soil of depth and quality worked themselves out to a conclusion almost mathematically certain.

As early as January, 1901, William E. Smythe, a writer who had for years made a close study of irrigation and irrigation projects, was quoted in the Los Angeles Times Magazine as saying: "Here we shall see small farms, very likely the smallest farms in the course of time, anywhere in the United States; since soil and climate are both favorable to this result. We shall see a wonderful diversity of production." In the same year, in Sunset Magazine he said: "Doubtless settlement will begin here on comparatively large areas, but it must tend inevitably and swiftly to the very smallest farm units on the American continent."

Clarence A. Shamel, associate editor of the Orange Judd Farmer, visiting Imperial Valley in 1903 said: "Farming lands in Illinois are selling as high as $125 an acre, and on the basis of productive value I would not be surprised to see the Imperial lands selling for from $500 to $600 in the course of . . . ten years."

Climate is a word much abused. It is frequently employed to describe all that is disagreeable in weather conditions when, as a matter of fact, climate relates to all those various phenomena which affect sensibly the tone and habits of the body. If climate means dust storms, extreme heat, a high percentage of humidity, sudden and violent rains, and biting cold, and these alone, then the climate of the Imperial Valley is such, as the ignorant and uninformed even now sometimes insist, that no human being can live in it. But since it does not there are grains of hope.

Climate usually is governed in a large measure, according to human standards, by temperature and its close kinsman in the family of metereological phenomena—humidity. Let us see what they are in the Valley.

It is obvious, first, that any region wholly surrounded by a belt of desert sand and then almost entirely by a ring of walling mountains, must be warm in the middle of summer time. Also the heat will be somewhat more intense in the lowest part of such

LAGUNA, ARIZ. SLUCEWAY 1-24-4
U.S.R.S. NO.1 SMYTHE-PHOTO.

Closely Related to Imperial in the Use of the Water of the Colorado River is Laguna Dam a district than on higher ground, just as it will be colder in the winter time in the low places. Consequently there is a small variation in temperature between the towns—say of Calexico and Brawley, or the town of Heber and the railroad station of Bernice, much lower down. In order to obtain a fair mean the government observations have been carried on either at Imperial or Brawley.

Below are given temperatures (average) for each month in 1906 and 1909, in order to afford a fair basis for securing a mean:

Month	1906			1909		
	Maximum	Minimum	Mean	Maximum	Minimum	Mean
	°F	°F	°F	°F	°F	°F
January	96	34	53.6	70.8	42.	56.9
February	88	38	62.4	71.2	42.9	57.
March	103	36	63.8	73.6	46.5	60.
April	106	37	69.2	86.2	52.9	69.6
May	107	50	73.8	91.8	57.2	74.4
June	113	54	83.2	103.1	66.2	84.6
July	116	62	91.4	106.4	72.3	89.4
August	115	65	91.6	102.3	76.9	89.6
September	110	55	81.4	98.8	67.5	83.2
October	111	36	73.6	90.	53.3	71.6
November	98	28	60.8	76.6	42.5	60.
December	81	27	53.6	61.4	37.5	49.4
Mean av. for year			71.5			70.5

Some persons believe it is very hot here on the hottest days of the year. Here are the official records, showing the highest point reached in each month during the year of 1909, an average year:

January	80°	April	99°	July	115°	October	95°
February	84°	May	105°	August	111°	November	93°
March	85°	June	112°	September	105°	December	74°

Highest: July 1, 115°.

Others assert it is too cold for endurance in the winter time. Below are the facts—a table giving the official figure for the lowest temperature reached on the coldest day of each month through the same year:

January	23°	April	46°	July	61°	October	46°
February	32°	May	50°	August	72°	November	34°
March	35°	June	60°	September	56°	December	24°

Lowest: Dec. 19, 24°.

The reader in or from St. Louis, Chicago or New York will look on the figures given in the second table above and shudder, for those high temperatures referred to, when they occur in those eastern cities, mean scores of fatalities and the most intense suffering. How can they be borne here with equanimity and referred to with complacence? The answer is found in the definition of the term humidity and its application to Valley conditions. H. A. Jones, representative of the United States Department of Agriculture, who was stationed at a combined evaporation station and weather bureau in Brawley from 1908 to 1910, has made this point very clear for us. Humidity, says Observer Jones, is "the moisture contained in the air," but, as used with relation to weather conditions, is always a relative term and means the per cent of moisture in the air compared with what the atmosphere would hold if saturated. Suppose, he says, that there is a dense fog, with the temperature at 60°; the humidity is then in the neighborhood of 100%. But the sun comes up, raising the temperature to 80°, and materially increasing the capacity of the atmosphere to hold moisture; immediately the degree of relative humidity is lessened and we say it is 50% or thereabout. "The humidity of the atmosphere exercises a strong control over our bodily sensations of the temperature of the air," he continues, and adds that that of the Imperial Valley is extremely low, and that therefore we do not suffer from the heat. Remembering these facts glance at this table of the relative humidity of the atmosphere at its highest point in each month, for the twelve months of 1909:

January	47	April	18	July	19	October	23
February	40	May	15	August	37	November	35
March	32	June	14	September	34	December	44

Average for year: 29%.

A similar table prepared in one of the eastern cities above referred to or, for that matter, almost anywhere off the dry deserts of the southwest, would show much higher readings, the temperature in the east in midsummer, of 90° or thereabouts often being accompanied by a relative humidity of 65%. It is this heavy, or "sultry" atmosphere that prostrates men and animals and that impedes all sorts of business often for weeks on end in the east and the Middle West. Comment on the table given above is not necessary if the reader will make his own comparisons with similar reports in any daily paper of weather conditions.

Climate also depends on atmospheric changes and conditions due to storms and to rainfall. The latter averages less than 4 inches annually, although many believe it is increasing in the Valley. Most of the rain comes in the early part of the year, although a slight fall is expected in August or September and showers in November and December. Concerning storms it may

From the Laguna Dam the Eastern End of Imperial County is Now Being Reclaimed be said without fear of successful contradiction that no such thingr are known. Occasionally brief, hard winds blow from the west os southwest, carrying with them clouds of dust, but the cultivation of increasingly large acreage will reduce the inconvenience caused by these winds to a minimum as time goes on. On rare days a sudden, quick storm of wind and rain, sometimes accompanied by scattering showers of hailstones is experienced, but such an event has occurred but twice in the last three years of the first decade and is nothing but a relief from the monotony of eternal peace. To some persons there is one feature of the winds that is vexatious and that is the presence of a marked electrical influence. This phenomena has been noted often and is worthy of study for the determination of its cause, which at present appears to be a disputed point.

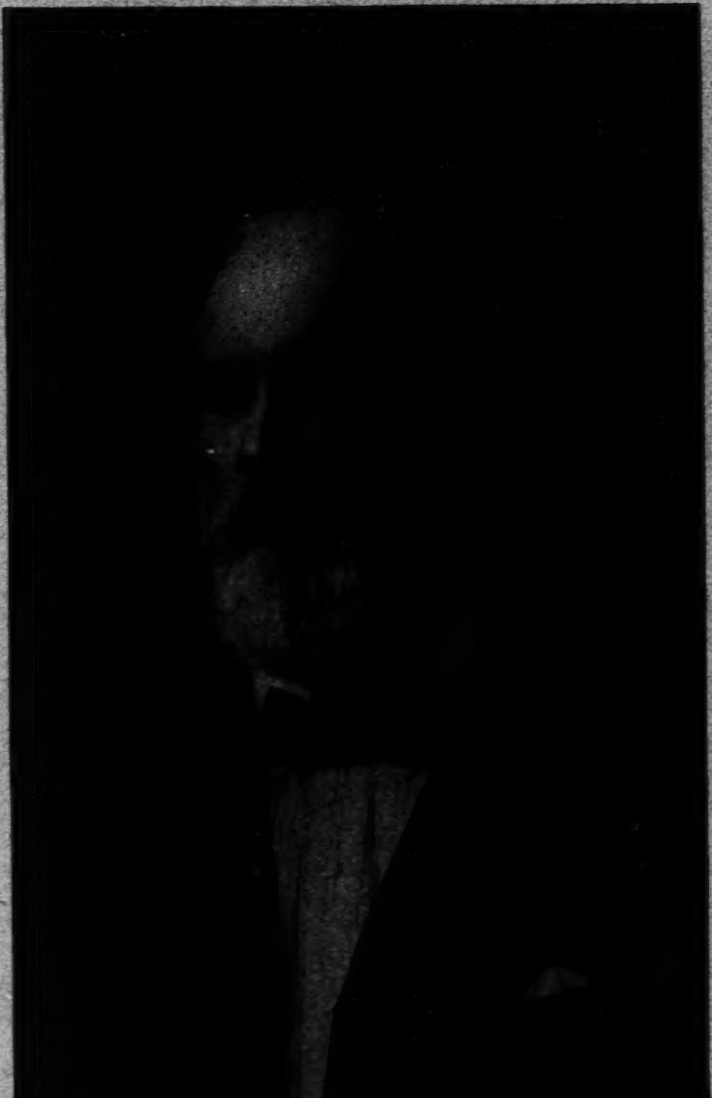
We have, then, disposed of this climate of which so much is heard. The fact that, at the close of ten years, almost 20,000 persons have come to make permanent homes in the Valley, very few of them spending more than a few weeks on the coast for a change and rest in the heat of summer, is eloquent of the true character of the climate. Whole volumes devoted to learned argument to the effect that metereological conditions are pleasant would speak with less effect.

The Valley is an agricultural territory: on this it must stand or fall. Therefore, in connection with the climate, it may be profitable to take up at once the two other essentials to profitable farming—soil and the water. Of the former much has been written, some without knowledge of the facts, some with certain facts but no knowledge of practical conditions, some with both facts and practical demonstration but little appreciation of the importance of the matter. We will try to summarize what has been learned.

In their "Soil Report" of 1902 the government students wrote that it was of five kinds, viz: dune sand, sand, sandy loam, loam and clay. They said that the first variety "is of a reddish brown color, rather rotten, and often mixed with particles of flocculated soil. When wet these particles break down, producing a sandy loam soil." This sand was blown into the desert from the old beaches on the west and northwest and, catching on one obstruction and another—usually mesquite bushes, they gradually built themselves up into sand drifts, dunes or hummocks, and when mixed with firmer soil, would, they said, form a good arable combination. The Imperial sand the experts reported was the same as the dune sand save that it was already spread out and more or less mixed with other soil. They recommended it highly. Of the sandy loam they said: "It is formed by the coarsest sediment of the Colorado river deposit, mixed with a little wind blown sand." They believed, also, in this mixture. The Imperial loam, they averred "is the direct sediment of the Colorado river which has been deposited in strata when the area was under water. . . . . It is from 4 to 6 feet deep, underlaid by a clay or clay loam, and contains considerable organic matter, including an abundance of nitrogen and potash." They wrote that this soil would grow barley wheat and alfalfa. Of the last class they said: "The Imperial clay as soil or subsoil is found throughout the entire area . . . This soil has been formed by the deposition of the finest sediment of the Colorado river and is . . . a heavy, sticky, plastic soil, very much resembling the clay subsoil found in the Mississippi river delta."

These classifications are probably more or less accurate. The soil report, as has been stated in a previous chapter, worked infinite harm to the Valley at the time because of its reiterated assertion that there was so much alkali in the soil that very few spots would prove amenable to profitable cultivation. That this was almost wholly untrue has been proven so often that the mere statement is sufficient here. Alkali has been developed in very few places: in those scattered and relatively small areas where it has always existed and where a struggle with it was anticipated from the first, surprising results have been obtained by patient and skillful efforts. Less than one per cent of all the land in this great basin has thus far been proven worthless for high cultivation. On the other hand a large percentage has been found to be even better than the most sanguine had hoped and to be improving year by year as cultivation is continued. Even the hard and slightly salty spots yield as vegetable matter is turned under, and in many places that not only the soil experts but skillful farmers characterized as worthless, luxuriant crops are being matured at the end of the decade.

The irrigation of arid lands has proven a hard science to master. Although it has been going on for untold centuries each new addition to the irrigable territories of the world appears to present new problems to the husbandman; the search for a specific



George Chaffey, Chief Builder of the Imperial Irrigation System formula expressing the relation between elements and results in irrigation continues. In this district there is no exception to be reported. The ranchers of the Imperial Valley have three conditions strongly in their favor: the generally uniform slope of the land and its excellent drainage, the fact that their sources of supply yield most heavily at the season of the year when water is most needed, and the silt-impregnated character of the water supply. In regard to the second feature it is to be added that, while the fountain heads of the Colorado are flowing most strongly during those periods in the summer when snows are melting in the Rocky Mountains, the Gila and Salt rivers are at flood during January and February, when the Colorado is low, early irrigation in the Valley is beginning, and there are falling throughout the water sheds of the two rivers named heavy and continuous showers of rain. Concerning the silt carried in the water, government experts working at the University of Arizona have determined that the Colorado at Yuma carries silt having a fertilizing value of $1.65 to each 3 acre-feet, allowing for a 50% loss in course of delivery to the land. This is a sound theoretical basis from which to figure but it must be remembered that at least part of this fertilizing value is off-set by expense of cleaning ditches and that in some cases fertilizing silt is not highly desirable in a field, especially where young and tender plants are seeking a foothold. In short, this quality in the water that revivifies the land each year in the course of irrigation, while undoubtedly of tremendous value taken the district through, cannot be figured as above and set down as net profit.

Climate, soil, and water have been shown to be the substantial foundations on which the agricultural hopes of the district are built. But one more factor is essential to productive value—a market; this implies the subsidiary requirement of transportation facilities. For the past fifteen years the city of Los Angeles, 200 miles distant from the Imperial Valley, has been consuming more than the territory immediately contiguous could supply. Within the last five years the demand has increased almost half, while the only large producing territory to be added to her sources of supply has been this Valley. The completion of the Panama canal means enormous increase in shipping and a resultant increase in demand for produce of every variety. In this year 1910 the Secretary of Agriculture reported that population was increasing throughout the country faster than the production of marketable food-stuffs, and he added: "We must look to the West, especially the reclaimed West, to add sufficiently to our productive areas to care for the increased demand the next few years will see."

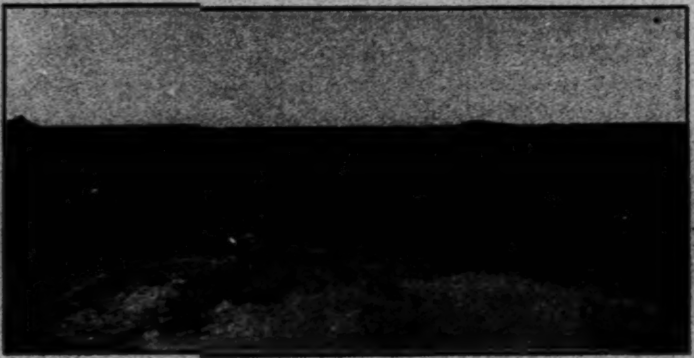
To deliver produce the Valley has a railroad line with enormous capital and facilities, a road largely controlled, as far as its local policies are concerned, by men keenly alive to the possibilities of the Valley, and a road whose interests are inseparably connected with those of the Valley. Another road is promised as this book goes to press, but whether it will be a competitive line, with the advantages to the shipper that competition implies, is doubtful. Inter-urban service, at present limited to that furnished between Holtville and El Centro by W. F. Holt's line, promises to be extended early in the second decade, so that produce may be quickly and economically moved from field to retailer.

To gain a useful conception of economic conditions in this Valley in the first decade one more item is important, viz: the circumstances of living. With all early settlements it has suffered from high cost of living and many discomforts and deprivations, but these conditions are rapidly being ameliorated. In the first three years living expenses were very high because all supplies were taxed heavily for transportation overland by teams. At the close of the decade it may be generally said that living is no higher than in other country communities, for slightly increased rates on imports, necessitated by exorbitant freight charges, are compensated by the cheapness of dairy products, eggs and poultry, honey, and a few vegetables. Conditions in these respects improve year by year.

Water for domestic use and for drinking might be considered a serious problem in the midst of a desert watered by streams carrying marked alkaline deposits. As a matter of fact eight months in the year the water, after ordinary filtration, is sparkling and healthful. There are certain days in the other four months when floods, either in the upper reaches of the Gila or Salt rivers or in the Colorado, impregnate the water with silt, and when this condition obtains in the summer time satisfactory filtration is difficult. However, the water is never unhealthful, as far as can be learned from repeated tests and analyses; its principal fault being that it has a peculiar musty taste, especially when warm. A deep settling basin and a filter suffice to insure good water.

It has been necessary in the foregoing pages to ramble over a number of subjects, some of which bring the reader down to the close of the decade. These anachronisms, however, should not divert the mind from the purposes of the chapter—to show the economic and living conditions approximately as they were in the Valley in July, 1902, when the beginnings of settlement were over and the district had become a recognized factor in the scheme of things. At the close of our last historical chapter we found the towns of Calexico and Imperial well organized, settlement constantly on the increase and every condition on the surface looking to prosperity and peace. Underneath this, however, we found a condition of disorder and dissension that threatened the whole enterprise. The life of the Valley was then, as now, absolutely dependent on that narrow stream of water flowing from the Colorado to the distributing canals of the mutual water companies. Did any circumstance threaten the continuance of the even flow of this water, or the well-being of the corporation delivering it and extending canals and systems to enlarge the territory of its delivery, and the whole edifice tottered.

Consequently the commercial progress of 1902 and 1903 was rapid. In the spring of the former year the "Imperial & Gulf Railroad" was organized with A. H. Heber, W. F. Holt, J. H. Braly, F. C. Paulin, and others named as directors and with a plan for constructing a road to connect with the Southern Pacific at Old Beach. W. F. Holt undertook the work of grading for such a line, engaging George A. Carter as construction contractor, Holt being given water stock as a bonus for advancing the cash



Rositas Levee, Thrown Across the Alamo River required, by the California Development Company. It was freely stated in the offices of the Land Company that this grading was only a bluff to force the Southern Pacific to build into the valley, and in May, 1902, this "bluff was called," for A. H. Heber was summoned to San Francisco by Julius Kruttschnitt, then general manager of the Southern Pacific Railroad, and an agreement was made to give the work then done to the Southern Pacific Company, the railroad to be completed to Calexico. This accomplished the Southern Pacific entered on the project, and on October 16, 1902, began work. The road was completed February 21, 1903, and although an event of primary importance to the settlers, commenced operation without any flurry of excitement.

The Valley's real "boom" was witnessed in the spring and fall of 1903. In April of that year the total acreage in crop was about 25,000, of which 6,220 acres were in wheat, 14,423 in barley, 750 in oats, 1,540 being prepared for corn, 573 in alfalfa and the remainder in grapes, fruit, garden stuff or melons. There would have been many acres more—in fact a large acreage was ready for crop that spring, but owing to the inability of the development corporations to raise money for extensions, the system, even with 700 miles of canals then built, or building, was wholly inadequate to the demands put on it. There was another difficulty, but we must come to that.

In the fall, by dint of scraping, borrowing and hypothecating property the company had slightly enlarged the scope of its operations and water was turned into many new ditches so that in the winter of 1903 no less than 100,000 acres were cropped. The Valley was growing apace, the population at that time being in the neighborhood of 7,000, and although very little produce was being sold, the money brought in from outside for development work gave the trading posts and the country in general a prosperous look. The extension of the Southern Pacific branch line from Imperial to Calexico was completed in January, 1904, and Calexico which had been a thriving trade center became a bigger factor as the terminus of the railroad.

Brawley and Silsbee, projected with Imperial and Calexico, were now reached by the canals and began to develop, and Holtville was staked out in this year and became a supply point for contiguous territory. Water company Number 4, in the fine land about Brawley, received its first water, and the systems in Numbers 5 and 7 were completed and cultivation begun extensively in this year, although the water supply was somewhat undependable and progress in many sections was impeded as a result. In order to encourage cultivation and to avoid complications of book keeping, and particularly because most of the new settlers were poor men, no charge was made for water up to the middle of July, 1905, over and above the annual assessment on water stock, but even free water was not overly useful when it could not be had, as was the case in such portions of the Valley as were filed on in advance of the ditches.

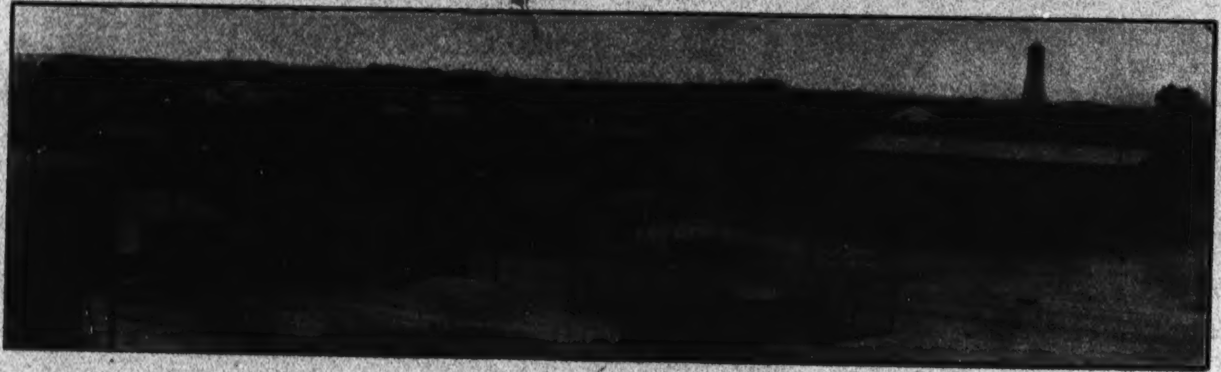
The town of Imperial grew rapidly, new business houses came in, residences of substantial sort were erected and a new hotel was opened June 19, 1904, with some ceremony, having been erected by the enterprising men of the Imperial Land Company, of which F. C. Paulin was president.

The impetus given the town by this company and by the enterprising business men they drew to the town proved sufficient to carry it well through that weaning time which must come to all new towns in time, when the promotion company withdraws its support and the citizens are left to their own devices.

But a cloud, no bigger than a man's hand, was rising on the eastern horizon of the Valley, a cloud none of the residents saw, and which, though it brooded over the Development Company night and day, appears never to have alarmed its officers nor to have distracted them from the dissensions again growing up in their midst. In the fall of 1902 it was thought that the headgate at Hanlon's, installed by George Chaffey during his regime, was not low enough to admit water when the river was ebbing; consequently the engineers dredged an opening around this gate such as is called by technical men a "by-pass." Through this narrow channel it was possible to get sufficient water for the needs of the irrigators. The by-pass was closed in the spring before the arrival of the floods always anticipated in May and June and no harm was done, although it was apparent that such temporary expedients were dangerous and costly and that a permanent gate, large enough and deep enough to furnish the necessary water, was imperative. No money was forthcoming for this work. Plans that had been made for financing the company had been annulled because of the attack on the soil by the Department of Agriculture and because reclamation service officials then held that this valley had no right to use the water of the Colorado.

But here is an illustration that shows on how slight affairs

1904



1910

Two Views From the Same Point of the Southwestern Quarter of Imperial big destinies turn. Long afterward the fact was discovered that the bed of the Chaffey gate was two feet lower than it had appeared. Sand boards two feet in width had been left in the gate, silt from the water settling against the boards and giving a false bottom to the gate. Had those boards been removed there would have been ample water, but they were hidden from view and the fault was not detected.

The cutting of the by-pass was repeated in 1903 and again in 1904. By the latter year, however, another cause for dismay arose to confront the engineers. The Imperial canal connecting the headgate at Hanlon's just north of the international boundary line, with the head of the old Alamo channel which was used to carry the water to Sharp's heading, ran for four miles almost parallel with the Colorado, through mud flats and having a very slight gradient. The result was that, in the course of those first four years so much silt accumulated in the canal that the diversion of much water from the Colorado was rendered impossible. It was found impracticable to dredge out this silt in the fall of 1904 in time to furnish water to the settlers, who by this time numbered 9,000, and whose crops covered probably 150,000 acres. There was but one alternative—to make an opening in the mud banks of the Colorado four miles below Hanlon heading, and in Mexican territory, connecting the river directly with the head of the old Alamo channel, or about there, and giving the river an opportunity to flow directly, and with a good fall, into the feeder that supplied the Valley. The making of this cut was of monumental importance—it was the gathering of the cloud of trouble that blackened the years of 1905, 1906, and 1907 for the residents of the Valley. It was the beginning of the end of the California Development Company, but not fifty persons in the Valley knew, or cared, that it was made—as it was—in October, 1904.

A Ditch Cleaving the Landscape left Mexico on the Right
and the United States on the Left

CHAPTER VIII

THE FLOOD

In order clearly to impress the importance of the opening of "Intake Number 3" in October, 1904, in its relation to the history of the Imperial Valley it is necessary, even at the risk of being thought tautological, to call attention again to the physical conditions at the head of the Imperial canal. The Colorado river, it will be recalled, has been described as flowing along the very rim of the Valley—in a manner of speaking—and from 25 to 200 feet above its floor. Had it been flowing through a channel worn in rock and had the cut been provided with suitable and adequate gates there would have been little danger. Instead the cut was made through 1600 feet of mud flats—the same formation as that in which the river meandered. The Colorado built those flats and for centuries had been changing its channel almost annually. Concerning the extreme delicacy of any work under such preexisting conditions F. H. Newell, director of the Reclamation Service once said*: "If we go into this depression below sea level and interfere with natural conditions, or—as we say—'develop the country,' we are brought face to face with the great forces of the river and the uncertainty as to whether it will desire to continue in the channel in which we happen to have found it." To have made a cut—even temporarily and for the most urgent of reasons—without full preparation to confront the consequences, was poor engineering—desperately poor policy.

No other man ever waged so desperate a battle for the rights of this Valley as did A. H. Heber. When the right to use the water of the river for irrigation was denied, Mr. Heber, who had influential friends in congress, caused to be presented to that body, early in the session of 1903-4, a bill making the simple and truthful declaration that the Colorado river is more useful for irrigation than for navigation.

On March 21, 1904, a joint committee began a hearing of

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*Smithsonian Report for 1907—p. 333.

C. R. Rockwood Had the Largest Possible Vision of the Valley's Future the question, Mr. Heber appearing in behalf of the bill and the reclamation service opposing it. The committee, accompanied by reclamation service officials, visited the scene briefly and later made an adverse report.

It was during that hearing before the joint committee that Mr. Heber used the expression that if he was not granted the right to the use of the water, now become essential to the people of Imperial Valley, he would worship at another shrine and appeal to another government which would not stand in the way of reclamation.

He was not slow in carrying out this plan after congress refused to recognize the rights of the people of Imperial Valley, for on June 10, 1904, he entered into contract with President Diaz for the development of the irrigation project on the basis of the use of one-half of the water in the canal, if so much was needed, being used on Mexican soil, and this contract was ratified by the Mexican Congress.

Then Mr. Heber ordered the opening of the Mexican intake.

The cut was made in October, 1904. Engineer Rockwood was in command and on his shoulders has fallen much blame. He was justified in believing that high water would not occur in the Colorado before April or May of 1905, before which time he would have the gap closed. The intake was 50 feet wide at this time and 6 or 8 feet deep; the water in the river at that time was so low this was not deep enough and the dredger was sent through on three occasions to widen and deepen the channel so that water for irrigation could be had in the Valley. It was with difficulty that sufficient was secured throughout the months of November, December and January.

Preparations were being made to close the gap when, on the afternoon of February 2, 1905, a telephone message from the heading conveyed to the California Development Company in Calexico the report that the first rise of a heavy flood had passed Yuma and was nearing the intakes. No damage was done—in fact the mouth of the intake was partially silted up. It was apparent, however, that a closure must be immediately attempted and material was being gathered, when, on the nineteenth of the same month, a second flood swept down. Eight days later a third rise occurred in the river, the cut was appreciably widened and the force of the current scoured the channel deeper. Sharp's structure, the wooden gate near the international line and at the head of the canal system of the Valley, was standing the strain bravely; considerable water was breaking out of the canal above that point and flowing westward; but the danger of trouble was for the future, when, March 25, the first attempt at closing the break was made. The company's dredgers were set to work piling up a mud levee and teams were used to carry out material so that the closure might be expedited. This method had been employed before and, under normal conditions, would undoubtedly succeed in this instance.

Meantime another crisis had been reached in the internal affairs of the California Development Company where two factions warred for supremacy. This internecine struggle is dealt with later: it must suffice here to say that it arose over a question of the expediency of seeking help from the Southern Pacific railroad. The latter had agreed to loan the Development Company $200,000 on condition that the control of the corporation should be turned over pending the payment of the loan; but Rockwood and his friends and Heber and his following were unable to agree on many points connected with this transaction. There is no question but that this struggle so engrossed all concerned that the critical conditions at the heading were almost lost sight of. C. N. Perry, one of Rockwood's assistants at Calexico and a man whose technical ability and natural poise of judgment appear never to have been affected by the turmoil of dissension in the corporation, was one of the first to see the inevitable result of delay in effecting

Even With Water the Desert at First Made One Homesick at Times a closure. On his own responsibility he went to the heading while Rockwood was in Los Angeles marshalling his forces for the annual meeting which was to be held in June, and arrived there just in time to see the mud dam at Intake No. 3 swept away by the fourth rise of the season.

Perry was probably guilty of what, in the army, would have been termed insubordination, but it was a pardonable offense: he went to Los Angeles to protest. Temporarily, at least, the common danger was impressed on the factions there and a diligent inquiry into ways and mean was begun. A second attempt to close the crevasse by means of the mud dikes was started, but it was apparent this was a feeble expedient. Little argument on the point was needed, for on April 18 a warning cry was heard at the intake and teams and men withdrew from the dike just in time to see the mass of earth sucked into the channel and carried down toward the Imperial Valley by the fifth rise of the year!

Perry's pleas thus received a forcible second. No money was available from the development company's treasury but the stockholders of Water company No. 1, aroused at last from a lethargy that seems inconceivable, raised a fund of $5,000 which they loaned to the former company to finance work and this was started under the supervision of Perry, with William Best as foreman in April, 1905. Perry planned to sink a large number of heavy brush mattresses across the cut from north to south, weaving them with wires and cables and pinning them to their places in the bed of the channel by means of piles. This work was advancing satisfactorily, in spite of the rising river (for it was now June and the melting snows of four states were filling the Colorado's channel) when Rockwood returned from a victorious contest for supremacy at the annual meeting, and ordered the attempt abandoned. He gives as his reason the fact that all the surrounding country was under water and that success was practically impossible. There are engineers who believe the Perry mattresses might have proved a foundation on which to build a successful dam, as it was early then and the breach was not more than 500 feet wide. This is one of those many points in connection with the fight with the river that will never be settled.

The 3,000-foot jetty was the next plan broached. In the middle of the river's channel and opposite the break, which had been an intake, there was a long, low sand bar, partially covered with weeds. This island divided the flow of the river, throwing a large part of the water toward the east (or Arizona) shore and Rockwood conceived that a jetty of brush and piling connecting the northern point of this island with the mainland on the Mexican side would have to withstand little pressure but would, when completed, throw all the water of the river toward the east channel. In order to reduce the strain he planned to make the jetty very long, more than 3,000 feet, in fact, so that the structure would form rather a bank than a dam. He started work on this plan at once with Thomas Hind in charge, and succeeded in constructing all but about 100 feet of the jetty. But that was all. "It was a simple matter," says Newell in the publication quoted above, "to bring the work of closure or diversion to a point where it seemed as though the river could be quickly turned, but the constriction of the channel due to any structure resulted in increasing the speed of the water and in adding to its consequent erosive force to an extent such that in a few hours enormous gaps were created." In the case of the Hind jetty the last few feet were filled with a torrent of water such that work in it was simply impossible and on August 3 it was abandoned.

How that demoniacal river laughed as it tore with resistless fingers at the twigs laid across its path! How it roared with crazy wrath at this temporary check, how its increasing waters swirled and cut and eddied deeper and deeper into the soft mud wall between it and the men who would curb it! It sucked the piles from their beds and hurled them to the shore, it flooded the island, it lapped the base of the government levies on the Arizona banks, it ran its own riotous course, defying the engineers who watched it gloomily from the bank, and at last, on the ninth of August, 1905, with a roar of crumbling earth, the whole great Colorado river turned from its bed and began flowing resistlessly to the Valley, toward that old Lake Cahuilla from which for ages it had been shut.

The annual meeting of the California Development Company in June, 1905, had resulted in the entrance of a new factor in its affairs, the Southern Pacific Railroad. Rockwood and his friends in the company overcame Heber's forces and turned the control to the railroad corporation. Epes Randolph, a trusted lieutenant of E. H. Harriman, was made president of the company and general manager of its affairs, with Rockwood as his assistant and three Southern Pacific employees as members of the board of directors. Randolph was particularly interested, for his corporation, in turning the course of the river, for by this time it was eating its way up to the roadbed of the Southern Pacific along the shores of the Salton Sea. Some feasible plan was insisted upon and Rockwood came forward with his gate plan, first crystallized August 5, 1905.

The original plan of the so-called Rockwood gate was simple. The engineer proposed going a few rods southwest of the crevasse in the river bank and there excavating a basin in which he would build a headgate, capable of carrying some 10,000 second-feet of water. When this gate was finished he would open her sluices, dredge a channel connecting her delivery side with the Imperial canal, and another connecting her intake side with the channel cut by the runaway river, and finally turn all the water of the latter through the gate. When these flood waters were pouring through his gate he would dam the then dry channel which had been cut by the flood, gradually lower the gates in his structure, and so eventually turn the Colorado into its proper channel. This plan met the approval of all concerned and its construction was ordered in the middle of August, 1905. Material was started from Los Angeles and subordinates began to make tests for a site for the gate. They found it would be impossible to build it any-

Even a Box Car Depot was Welcomed With Joy When the Railroad was Built where without first sinking a foundation of long piles and, this being the case, Rockwood slightly changed his plan. As he would have to put down piles in any case he decided to dredge a by-pass from the flood channel to the Imperial canal, allowing the flood waters to take this course and then, in the dry channel afforded, to sink his piling and build his gate in the very course the runaway river had itself cut. The by-pass did not take all of the flood waters, however, but a dam was thrown across below the mouth of the by-pass in the flood channel and another was planned lower down in the same channel, the notion being to pump out the water between the two dams and afford the workers a dry bed in which to begin their construction. This was the plan of the Rockwood gate as it was perfected about September 1.

Meantime Rockwood found the work of managing the affairs of the company in Los Angeles and superintending the closure at the intake "was too much for one man" as he puts it, and he asked to be relieved from one set of duties or the other. Mr. Randolph agreed that Rockwood had too many responsibilities and the result was the appointment of F. S. Edinger, at one time bridge superintendent of the Southern Pacific railroad company. Edinger was to have charge of the construction of the Rockwood gate, but, according to Mr. Rockwood, lost faith in the feasibility of the gate plan in October, very shortly after his appointment, and persuaded Randolph to allow him to substitute for Rockwood's plan one contemplating the construction of a 600-foot jetty on the lines of the 3,000-foot Hind jetty which was abandoned early in August. Randolph approved this plan and Edinger was in the midst of its consummation when, on Thanksgiving day, 1905, an unprecedented flood swept down the river with a wall 10 feet high, carrying trees, piling, wreckage and dead animals on its crest and tearing the Edinger dam out by the roots.

Meantime the waters of the Colorado river were flowing entirely through the crevasse into the Imperial canal, which is really, at that point, the old Alamo or Salton channel. This bed was not large enough to carry it at flood and the waters had spread out, inundating thousands of acres south of the boundary line, and so making their way westwardly into and down the channel known as New River. The serenity with which residents throughout the Valley viewed the situation must have been largely due to ignorance of the real conditions. In March heavy rains fell and the whole district was almost a lake.

The farmers were becoming uneasy, and deputations from Numbers 1 and 5 Water companies were sent to Hanlon's to investigate in June. That these men did not even then realize the gravity of the situation is an unavoidable conclusion, for they returned with favorable reports. I. W. Gleason, one of those sent from No. 1 company is reported in a daily newspaper at that time as having said: "There is no danger at present," and in the same paragraph, "although the opening is now 100 feet wide and 3 feet lower than the original channel of the Colorado river."

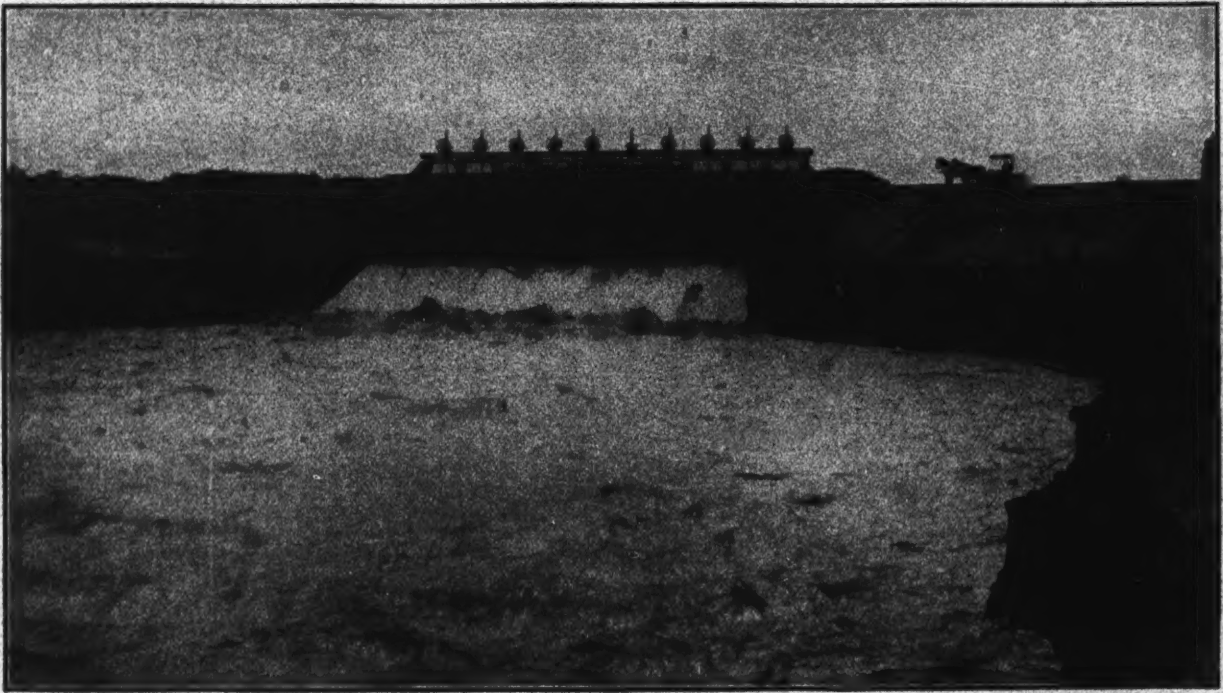
As a matter of fact the settlers in the Valley were so helpless in the circumstances that they left the river to the Development Company. That they did not allow themselves to be greatly alarmed in the early days of the overflow may be partly responsible, however, for the lethargy in the Development Company offices. Immediate, insistent and determined demands for action might have saved many weeks of time and many thousands of dollars later. But this was not foreseen.

The destruction of the Edinger jetty was not a cause for great surprise to Rockwood and his assistants. He says that it was built without consulting him and he implies that the temporary abandonment of the gate plan and the loss of time on the hopeless jetty project, was a great piece of folly. However that may have been the damage was now done and in the winter of 1905 the engineers turned once more to the gigantic task of curbing a river which had five times snapped its fetters and which was now bent on refilling Lake Cahuilla to pre-historic dimensions.

Edinger dropped out and Rockwood again took the reins. More firmly convinced than ever that his only hope of victory over the rebellious river lay in the gate plan, he turned to that at once. The situation, however, had changed since that fifth of August when he had first outlined his scheme. Then the crevasse was less than 500 feet wide, there was a by-pass to carry the water around the spot in the channel where the gate was to be built, and the material for the structure was on the way. Now the island was gone, swept away in the Thanksgiving day flood, the crevasse was more than 900 feet wide, and much money had been spent that was badly needed. However, Rockwood's plans were accepted and on December 15, 1905, work was started. It was found necessary, as a preliminary work, to build what engineers call a cofferdam. This is on the same principle as a dry-dock, in that a water tight wall is built up completely around the area in which work is to be carried forward and from the enclosure the water is pumped and the mud dredged. This cofferdam was constructed at a heavy expense, but every possible means was employed to expedite it and when it was finished the erection of the gate on three rows of 30 foot piles, sunk to their caps in the earth and faced with water tight planking, went forward rapidly. This gate was 240 feet in length, 10 feet through and 25 feet from floor to the top of the frame-work; its cost was more than $130,000; it was completed April 18, 1906. The plans which were drawn by C. N. Perry, called for the dumping of considerable rock at either end of the structure both to give it stability and to prevent erosion there, but this rock was never deposited.

The river was once more at flood. More than 20,000 second-feet of water was pouring down the channels toward Salton Sea, a volume of water such as few engineers would care to attempt to handle under the most favorable conditions, consequently ir was decided to postpone further operations until the summet rise had ebbed. In the interim Rockwood resigned as assistant general manager and H. T. Cory, a trusted advisor of Epes Randolph, and an engineer of great technical skill was made general manager. Rockwood became, then, consulting engineer only,

There Were a Few Inhabitants About the Desert Before the White Man Came



For Weeks the Alamo Wastegate Designed by C. N. Perry Stood Between the Valley and Ruin and his connection with the work from that time forward was nominal.

Some conception of the colossal task confronting them was now impressed on the engineers. From that Thanksgiving season when they had watched the muddy river rise from 6,000 to 102,000 second-feet in three days their respect for the power of the river and the realization of their own impotence against it at its height had grown. That no private enterprise could close the ever-widening gap was apparent: the only agency extant which could cope with the Colorado was a powerful and determined railroad organization. The Southern Pacific was now enlisted in the fight and it was evident that corporation would have to take the work seriously and concentrate its energies on the task or else abandon it. The latter was not to be thought of, and to that end orders were issued to close the break at any cost. The fall of 1906 was to see the finish fight.

The time had come when the settlers in the Imperial Valley no longer viewed with complacency the flood waters that threatened them. For six months they had watched it eating its way through the district in two channels, vainly congratulating themselves that it was not to harm them. But in the spring of 1906 they awoke at last.

Let us glance at the topography of the country into which the runaway river first came after leaving the old bed of the Colorado. As has been said the California Development company utilized as a main canal, as far as Sharp's Heading, the old course of the Alamo river. This heading was, in a way, a duplication of the Hanlon heading, inasmuch as it was built in the intake from the Alamo to the various canals of the Mutual Water companies, and there regulated the amount of water to be taken out. A few rods below the mouth of this intake a gate was placed in the Alamo, known as the Alamo waste-way, which was really a wier used for raising the amount of water needed at Sharp's. These structures, which are still used, are remarkable ones. For weeks they carried three and four times the water they were built to carry, an effort being made, of course, to use as much water through them as possible to lessen the floods about Calexico and the flow down the New River, of which we shall speak. The gates were designed by C. N. Perry, and built under his supervision, the Sharp's gate to carry 800 second-feet maximum; the Alamo less.

During the weeks of which we are now writing Sharp's passed 1,800 to 2,000 cubic feet of water a second and in the spring of 1906 there was measured running through it a stream of no less than 3,500 second-feet.

The Alamo waste-gate also performed wonders. Perry had taken the precaution to sink the floor of this structure two feet below the channel of the river and it is well he did, for, during the floods, dirt was carried away from below so that a fall 30 feet high came into existence. A sloping floor was built from the bottom of the gate to the channel below to carry this water and both this gate and Sharp's stood the strain admirably.

These structures were watched with unusual concern because from April, 1905, to the closure of the crevasse in the winter of 1906, they stood between the floods and the crops of the whole Imperial Valley. Had Sharp's gone out the Valley would have returned to its desert state in thirty days; the loss in crops and of live stock would have been counted in millions, and the financial ruin of thousands would have been accomplished. But Sharp's did not go out; it remained fast, holding back the floods that pressed against it and dividing those which passed through into two streams, one a useful stream flowing evenly into the company ditches to be taken out by the ranchers on their fields, the other a stream of waste water that tore down the Alamo channel, turning it into a river and accounting for the cutting of one of the great trenches traversing the Valley to this day.

The other channel, New River, was cut by flood waters which left the old Alamo channel far above Sharp's, flowed out across the level country, largely marsh and slough, lying in the triangle formed on the north by the Alamo and small ditches along the international line, on the south by Rio Paredones and Volcano lake, and on the west by the New River channel. The sloughs in this triangle are known as Beltram, Garza and Pink Mountain sloughs and are of indefinite size and shape since there is little to distinguish them from surrounding country when there is much water at large. The Paredones river carried from Beltram slough a great deal of water to Volcano lake. This lake has for its overflow waters two courses, the one south to the Gulf of California being Hardy's Colorado and the one north to the Salton sea being New River. A remarkable condition is this, but still more remarkable the fact that both these streams have their origin at the same point on the west side of the lake. At this point Cerro

Prieto, or Black Butte, juts out into the mud flats at the rim of the lake and forms a solid foundation. Incomprehensible as it may be the waters of Volcano lake overflow and break on this jutting bed-rock, part of them running north and part south. Of late years a concrete structure, known as the Bowker gate, has been installed just below this point in New River and it is now possible to shut water out of New River and to divert it on to land owned by the California-Mexico Land and Cattle company at this place. But this gate was not there at flood time and a heavy flow entered New river directly from Volcano lake.

The great and dangerous body of water flooding the triangle described above, was, however, finding its escape mainly through Pink Mountain and Garza sloughs directly into New river. The channel of the latter was a shallow, insignificant and winding one and it is easy to see that it would not carry off a very great flow. Between it, the Hardy and the Alamo channel, however, the flood waters of the year 1905 were accounted for, and it was not until January, 1906, that any considerable area in the Imperial Valley was overflowed. At this time the waters began to rise, covering the territory south of the Mexican line and a large part of Imperial Water Company No. 6. The new border town of Mexicali, a settlement which had grown as a sort of excrescence on the edge of the Valley, was threatened, Calexico was being approached and

The Desert Soon Took On a Wide Diversity of Architecture

The "Cutting-back" Process Formed the New River Gorge and Saved Calexico it appeared to be only a matter of a short time when everything south and west of the Main canal, two miles north of Calexico, would be inundated.

With some hope of at least delaying the evil hour citizens of Calexico determined to build a levee to protect their homes and stores and this they did, raising an earth bank 6 feet in height and a mile long between themselves and the flood waters. For weeks this levee held back the water and then developments near the mouth of New river awakened hope anew. These developments consisted in the rapid cutting-back of the channels of both the New and Alamo rivers, the process being due to the fact that the soil was of a character easily dissolved and incapable of resisting erosive action. The gradient being very steep in both rivers rapids were formed that speedily ate back toward the source of supply. It was seen that, if this cutting-back process should proceed rapidly enough, a channel would be formed amply large not only to carry the flood waters that were coming in but to drain off the overflowed lands. It became a matter of a race between the cutting-back of the channel and the rise of the flood about their levees.

It was a trying time. Toward the latter end of March both factors in the situation were making rapid progress; and the citizenry and Engineer Perry's men went to the aid of their ally, the cutting-back process, with dynamite, hastening the making of the great channel being washed out. The powder was effective but on the night of Saturday, April 1, with a gale blowing and rocking the flood waters until they lapped the very tops of the levees the alarm was sounded and volunteers rushed to the dikes. For three days, in such a wind as seldom has blown in the Valley, these men fought inch by inch and foot by foot against the rising waters. Exhausted and worn, they carried forward the last few hours of the struggle while, a few rods away, volunteers in rocking row boats risked their lives to deposit sacks of giant powder in the channel to hasten its progress. It was nip and tuck between the two forces but the channel won at last, and to the great relief of Calexico the flood waters began to subside, being sucked into the growing gorge and carried down to the sea.

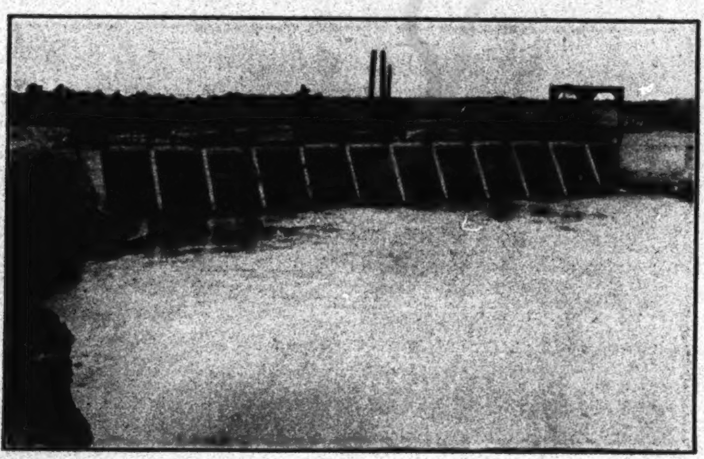
Meantime residents of Imperial and El Centro had become alarmed and were out in force adding to the height of the ditch

After the New Niagara Had Worked Up Stream it Left Ruins at Mexicala That Looked Antique Beyond Their Years banks of the Main and Elder canals on the south and the Date on the west, which banks alone were protecting the two towns and their contiguous territory. El Centro was in the building then and workmen were called from their bricks and lumber to go to the levees with shovels and sacks. The fight was briefer here, for the same agency that saved Calexico drew off the floods from the district lower down.

From this time forward no more Valley land was actually flooded but a new cause for dismay was discovered. Cutting back in New river was a means of salvation, but what if the process should continue back through the Pink Mountain and Garza sloughs and so to the Alamo River? What if Sharp's should be left high and dry and the channel should be deepened back through the Alamo to the very intake itself? What if victory should be delayed at the heading until the deepening channel should pass Yuma and attack the foundations of the great Laguna dam, 12 miles above? These latter contingencies were not probable, but they were possible, as the residents and engineers soon had good reason to know. For the cutting-back continued rapidly and great crews of Indians were engaged to go down into the sloughs and there spread the water by means of brush and earth levees to prevent concentration of the floods. This means was successful, but had the fight been an indefinite one the settlers would certainly have lost. Luckily the summer of 1906 passed and with it the floods in the Colorado, so that, although the river continued to pour through the crevasse and to run on by the courses it had chosen and partly constructed to the Salton sea, it flowed harmlessly.

With a certain exception. Chance chose for the New river a course running close to the Southern Pacific tracks and depot buildings in Calexico and directly through the town of Mexicali. Everything in its way was, of course, carried down to destruction. Many frame buildings were removed in time, but the adobes of Mexicali were an easy prey to the voracious river. Of the hundreds of acres of farming land lost in the same great maw it may be said, even at the risk of being thought unjust and heartless, that the losses of these farms were the greatest single gain ever made in the physical condition of the Valley. For the sacrifice of these made possible the development of two drainage channels that answered the last question concerning the future of this Valley as an irrigated district. In an early chapter reference was made to the two channels that always existed there. At the time the Valley was opened they were sufficient to carry off all wastes; but with the rapid development of later years the need of large waste-ways and drainage channels became imperative. If the land owners and the Development Company had seen fit to assess themselves pro rata for the loss those sustained whose ranches were swallowed up to benefit the whole community there would, indeed, have been a justice Utopian in nature and gratifying to recount. Unfortunately no such unselfish movement has ever been started: it is too much to hope it, or any similar one, ever will be until our natures and characters are changed by the refining fires of time.

It seems incredible that, at such trying periods as the one just described, there should have been industrial prosperity in the Valley, but such was the case. Many there were who became desperately worried and a few sold out and left the Valley, congratulating themselves, for a few brief weeks, on their own perspicacity. But in the larger number of cases the settlers, both in the country and in the towns, stayed with the enterprise, firm in the confidence that eventually the Colorado would be conquered. As a matter of fact there was, even at the end of a year, comparatively little interest in the antics of the runaway river or the frantic struggles of the force at the intake. Save for those few days when the towns



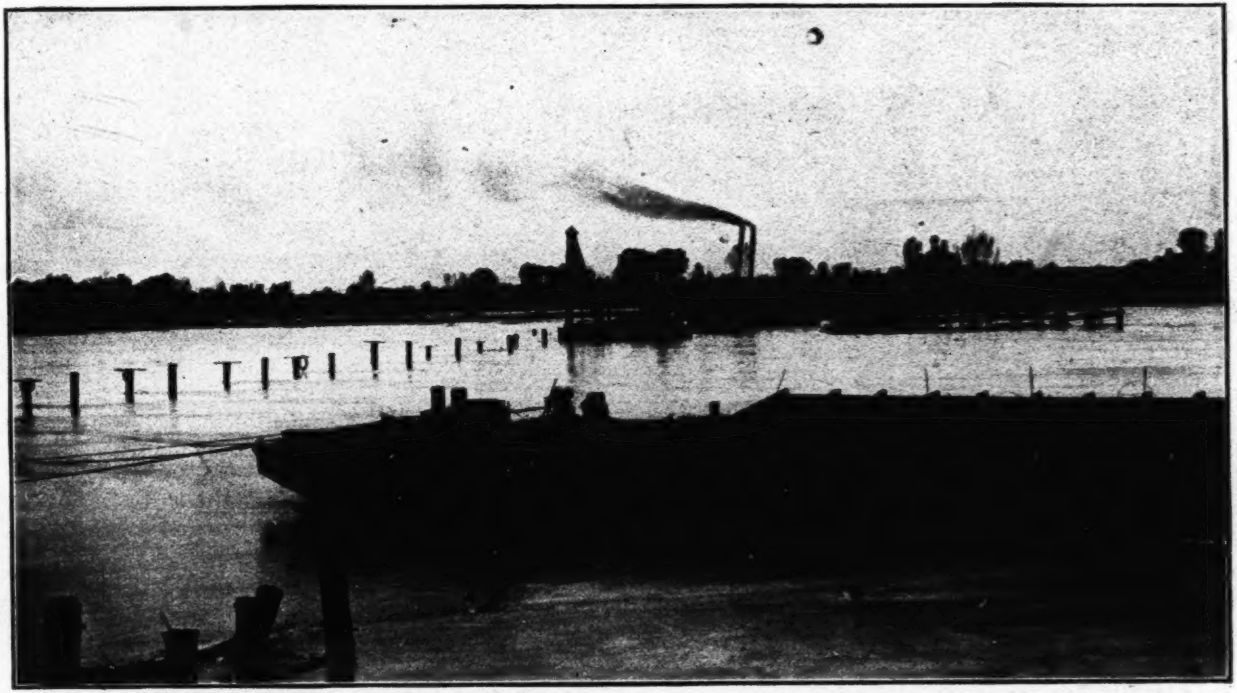
The Cement Intake Gate Came After the Valley Was Well Advanced in Reclamation were threatened, or occasionally when some new rumor of trouble arose (for men fear the unknown and the uncertain), there was little curiosity displayed. By the summer of 1906 reliable information was to be gleaned from the columns of the Imperial Daily Standard, started as a daily during this fight with the river, the Imperial Valley Press of El Centro, the Brawley News, the Calexico Chronicle and the Holtville Tribune. Exaggerated and absurd reports of the conditions in the Valley were published in outside newspapers and magazines but, although these stirred the wrath of th esettlers, they did no harm. Probably the most ludicrous and assinine blunder was that made by those directing the policies of the Los Angeles Examiner, when they accepted and published the report of some callow youth that an underground fissure had opened and that the waters of the ocean were flowing through subterranean passages into the Salton sea, threatening to engulf the whole Imperial Valley! In time this underground fissure, which had a considerable run of newspaper popularity throughout the country, was effectually closed by the accurate and timely reports of special correspondents sent to the Valley and the intake by Los Angeles papers, the Associated Press, and by reputable and dependable magazines.

So we have come to the fall of 1906, with the Valley going ahead busily, planting and harvesting, or building homes and stores, while at the intake or in the engineers' offices men pored over books and maps planning the campaign of the fall that was to win or lose an empire. The Southern Pacific railroad was in control: the orders read: "Stop that water!"

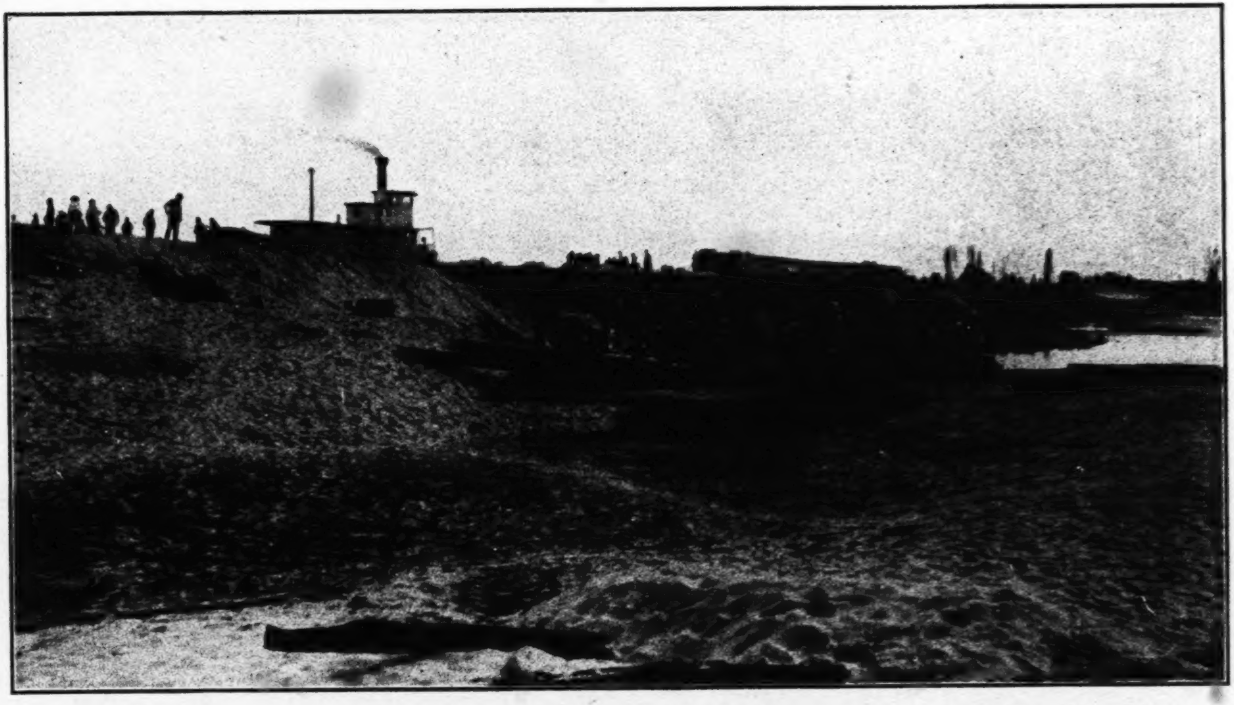
If the historians had been as fortunate in all respects as they were in obtaining the matter for the remainder of this story of the closure, this volume would gain materially in value. But it was not possible to have all its pages written by the men who were most intimately connected with the story carried: in this case Mr. H. T. Cory proved a willing assistant. Mr. Cory was the acting head of the work of closure. While executing orders, in a large way, they were the orders of a field general from the department of war and did not enter into the details. Mr. Cory consented to tell the story, and only failed in one respect, namely, to tell truly his own part. That he was the spirit dominating every action, the motive force behind every concerted effort, the inspiration of all enthusiasm and the Atlas supporting the colossal task to its consummation everyone knows who followed that desperate struggle with a river. Mr. Cory's modest narrative follows:

"In April, 1906, the Rockwood gate having been finished and it having been decided impracticable to close the crevasse until the summer flood had passed, at Mr. Rockwood's suggestion he was relieved as Assistant General Manager of the California Development Company and assumed the duties of Consulting Engineer while I became General Manager, the circulars of appointment bearing date of April 19, 1906. The terrible San Francisco earthquake and fire had just occurred and I at once went to Oakland to ascertain the condition of the machinery for the mammoth clam shell dredge which was deemed an essential factor in the operations along the river. Fortunately the damage the apparatus had sustained was not very serious, although the plant of the company which supplied it was practically wiped out of existence. At the same time President Epes Randolph had secured from Mr. Harriman an appropriation to complete closing the break, several times as large as any estimate which had ever before been submitted for the entire work. When it is remembered that Mr. Harriman had barely arrived by special train from New York to find himself surrounded by the still smoking ruins of the greatest conflagration in history; his railway facilities there terribly crippled yet taxed far beyond anything known to get away the hordes of helpless refugees; the key city of his gigantic railway system possibly hopelessly crushed and thus the collapse of his life's work and personal fortune, one must feel the securing of such appropriation to be the most remarkable accomplishment of the entire matter.

"The money end of the work being provided for, the building of the clam shell dredge at Yuma was at once begun (May, 1906,) and hurried to completion with all possible speed. Arrangements were quickly completed and work begun the latter part of May on a railroad track from the Southern Pacific main line at Hanlon Junction via Andrade and Los Algodones to the break opposite the Rockwood gate. This spur passed through the rocky point of Pilot Knob upon which the concrete headgate was built, and a stone quarry was developed there with all speed. A short distance to the west of the spur and immediately north of the International Boundary Line, it was found possible very quickly to get a steam shovel pit from which enormous quantities of dirt could be loaded into cars with maximum speed.



Thomas Hind, One of Engineer Cory's Lieutenants, Wove a Brush Mat on a Barge, Laid it on the Floor of the Runaway River, Drove Piles Through it and Thus Prepared for the Closure



As Rocks and Gravel and Clay Were Tumbled Into the Stream They Eventually Rose Above the Water and Brought the River Under Subjection

"All of these preparations were entirely extraneous to all former plans for closing the break and in themselves alone represented an outlay twice as great as the entire estimated cost of any previously suggested plan. Therefore some form of brush and pile dam or structure was assumed to be the only type of construction worthy of serious consideration. This was due in part to the great cost of six miles of railroad to be used for only a few weeks, but in far larger degree to the fact that without exception all the engineers, great and small, and all the old river men, wise and otherwise, did not think, but knew, that every rock thrown in the river was a thing almost instantly gone without leaving even a trace in the soft silt bottom of the Rio Colorado. Nevertheless, I wanted plenty of rock to use in conjunction with brush and piling, and besides the task seemed of such magnitude as to quite justify, if not absolutely require a railroad track to get materials and supplies to the front if everything should go as planned, let alone the possibilities which would be presented by a failure of the Rockwood gate. Workmen, materials and supplies were in the meantime hurried to the scene by the company's steamer Searchlight and early in August, when the discharge of the river had fallen to twenty-five thousand cubic feet per second, active work on the closing proper began. First the channel proper of the river was narrowed by jetties to six hundred feet. Next a brush mattress, consisting of fascines sewed by three-eighths inch galvanized iron rope to heavy three-quarter inch cables, eight feet apart, was successfully woven and sunk across this six hundred

Outdoor Life Tends to Develop Horsemanship, and the Bronco Plays His Part foot channel, the mattress reaching fifty feet both up and down stream from the center line of the dam to be. This work was completed early in September. Then followed a very substantial pile trestle carrying an extension of the railroad spur already mentioned. Meanwhile teams had thrown up dikes over the sand bars exposed by the receding flood waters, from either edge of the water to the banks proper, which were over a half mile apart. Brush was piled under the trestle and sunk by rock obtained in the quarry at Pilot Knob, loaded with steam shovels, hauled thither by train loads and dumped from above by car loads. Similarly dirt was brought from the 'clay pit' and unloaded along the earthen dikes at each side of the crevasse proper. At the same time levees were started running from the concrete headgate to the Rockwood gate and from the south end of the earthen dike across the break down along the river several miles.

"Meanwhile, by the dipper dredger, hydraulic dredge, teams, and hydraulic erosion aided by dynamite blasting, the by-pass or artificial side channel in which stood the Rockwood gate, was enlarged and deepened, while the dam of brush, piling and stone in the crevasse reached its crest, until, on October 10th, all the water, practically speaking, in the river was passing through the by-pass and the gate and none over the dam. Weaknesses in the headgate had developed soon after being strained to any extent and in spite of every possible effort the next day, October 11, 1906, at 3:15 P. M., about two-thirds of the gate suddenly lifted up and floated down stream about fifty yards, where it grounded and hung.

"Such result was a bitter disappointment to the loyal band along the river and caused consternation in the Valley. But the experience already obtained regarding the use of rock and the available possibilities of rushing tremendous quantities of stone rapidly to the scene, made it evident that putting rock in the breach faster than the rushing current could carry it away was more than a forlorn hope and Mr. Randolph at once ordered the gamble taken.

"By exhausting the capacities of every quarry between Los Angeles and Nogales, four hundred and eighty-five miles to the east, in three weeks and one day, November 4th, all the muddy waters of the Yellow Dragon were again in their old time channel on their way to the Gulf of California.

"Nothing was left undone to hurry the completion of the dam across the break and the levees up and down the river, but on December 7th, a sudden flood in the river broke through the unfinished levees a half mile south of the crevasse which had just been closed and in thirty-six hours the entire river was again flowing into the Salton Sea.* After over two weeks' negotiations and at President Roosevelt's request, Mr. Harriman gave orders, December 28th, to again make the closure. By practically closing the Los Angeles and Tucson Divisions of the Southern Pacific Company and throwing most of their equipment upon the work; by running many special trains of piling and heavy timbers clear from New Orleans; and of rock from California and Arizona; by hazardous driving of piling and building of bridges across racing waters; by methods and work heroic and effective beyond precedent; by rushing in stone at such tremendous rate that Mr. Harriman con-

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*The shock that came to the people with the knowledge of the second break in the river is illustrated by the following dispatch sent by one of the authors of this history to the Los Angeles Times:

YUMA, Ariz., Dec. 9—[Exclusive Dispatch.] Once more that great chocolate colored dragon—the Colorado river—is triumphant. Three days ago it began to claw at the dike which had been thrown up to impound it. It got its head through Friday night, gained on it yesterday and today its slimy body reaches all the way down to the Salton sink.

The old channel of the Colorado is but a stretch of slippery mud, while the river itself is tumbling down to the sink through the weird and fantastic canyon it carved for itself last summer.

The battle is on once more. It is a struggle with this great repulsive brute that gathers the soil along its pathway for a thousand miles and piles it up here that it can clamber down into the beautiful valley where a thousand farms deck the landscape. It is a struggle worthy of men, and the battle is being fought as men fight.

I have been to the break again today, have seen the entire body of the great river once more pouring down toward Salton sea, just as it was before the closure was effected a month ago—just as bad but no worse than it was then.

And now I must return to Imperial Valley to face those thousands of people who for two years had hoped against hope for the salvation of their homes, who a month ago were told that their land was redeemed from the menace of inundation, but who now must learn once more to fight a manly fight against discouraging fate.

I am not going to attempt to paint a fancy picture. I am not going to hold out any false hope. I am not going to declare that success is a certainty. We may as well face the truth, and the truth is that no man can see five months into the future of Imperial and Coachella valleys. If the Colorado river is not mastered for all time, in five months the prospects are that these valleys, which constitute the main part of the erstwhile Colorado desert, will have ceased for a score of years to be a habitable part of the globe.

I believe the conquest will be made. There is good reason to place hope in the money, the equipment and the engineering skill of the Southern Pacific Company, which now faces the greatest engineering problem ever presented to any railroad, and which must realize that it has a gigantic fight for the preservation of its main line.

But if it fails in accomplishing this task before the floods come next summer, it seems inevitable that the canyon of New river will be cut back to the Colorado and begin to eat its way up the muddy bottom of that stream, cutting the water supply of the irrigation canals of Imperial Valley, carving so deep a bed at the break that the water can never be lifted to the old channel, leaving Yuma high and dry and eventually undermining Laguna dam.

In this event no human power can prevent Salton sink filling with water to the point of overpour into the Gulf of California, about twenty feet above sea level. Which alternative will be the result of the struggle no skilled engineer will say, but the very desperation of the situation will make the efforts of the men in charge rise to the level of the heroic.

The fluctuations between hope and despair during the two years of struggle with the Colorado has been pathetic in the extreme for the thousands of people who have staked their all in the efforts to create homes on the reclaimed desert. So wonderful has been the advancement of that section in five years that it seems almost incredible that even insensate nature could blast the hopes and destroy the achievements of these brave people.

It takes time to formulate definite plans for the new work, and to this end General Manager Cory left this evening for Tucson to confer with President Epes Randolph of the California Development Company. That Colonel Randolph will make quick decision and act energetically is to be expected.

E. F. HOWE.

1905

1910
East Eighth Street, Imperial

sidered such, as well as the closing itself, the greatest achievement of his railroad career, on February 14, 1907, two weeks and a few hours after completing the first trestle across the waters, the Colorado River was again more or less peacefully on its way to the ocean.

"The people of Imperial Valley and their descendants to the third and fourth generation will doubtless remember the coolness under severe strain, the ability, the unconquerable spirit and the absolute loyalty at all times displayed, not only by the leaders, President Epes Randolph, Thomas J. Hind, Clarence K. Clarke, Eulogio (Jack) Carrillo, William J. Best, E. H. (Pete) Gaines, J. Chester Allison, 'Scotty' Russell, C. R. Rockwood, but the pile drivers, carpenters, mattress men, trainmen, enginemen, quarrymen and even the Indians who often worked unquestionably in most dangerous situations. For while it was to all one of Life's Games, and an irresistibly fascinating one, yet it was also a desperate one upon the winning of which depended, not only tremendous property interests and personal credit, but thousands of American homes and the absolute all of very many of the Valley's pioneers."

The Neighboring City of Yuma Hugs the Bank of the Colorado River

CHAPTER IX

CALIFORNIA DEVELOPMENT AND MUTUAL COMPANIES

We turn our attention in this chapter to the obvious and open history of the Company and its auxiliary corporations—the Mexican Company and the several mutual water companies. We have already followed the Company from its organization in April, 1896, to the time of the departure of the Chaffey's from its direction early in 1902.

The struggles of the next two years to obtain money for development work were Herculean, although it did not appear difficult for certain members of the new organization to obtain money to line their own pockets, and on top of the disingenious "Soil report" of the boy, Holmes, came an attack on the right of the Company to take water from the Colorado. Under the state law of California appropriation of water for irrigation might be made only by posting a formal notice of that appropriation near the point of diversion and by filing a duplicate of the notice at the county seat, but such water must be actually used for irrigation. In this case 10,000 second-feet, which means 10,000 cubic feet of water per second, were appropriated, but not nearly that much was either taken out or used. J. B. Lippincott had later made a similar filing for the Laguna government project. Government officials stated that, as the Colorado was a navigable stream, and under the jurisdiction of the Secretary of War, it was necessary for the Development Company to get permission to make any appropriation. This permission was accordingly sought and refused.

The legal advisers of Heber and his associates counselled action, so Heber went to Washington and induced Senator Perkins of California and Representative Daniels of the Eighth Congressional district of the state to present bills in their respective branches of Congress declaring the Colorado river more valuable for irrigation than for navigation. These bills were first read in January, 1904. In March of the same year an extensive hearing was given the matter before the House committee on the irrigation of arid lands. At this hearing the principal objection came from William E. Smythe, of San Diego, an irrigation expert, who represented himself as coming in behalf of a large number of settlers of the Imperial Valley, and who made a forcible and somewhat bitter speech against the favorable consideration of the bill.

This man Smythe had never been properly catalogued and put down to the satisfaction of the thoughtful in the Valley. He was a rank outsider, having no interests in the Valley and no apparent connection with any of its people. Possessing considerable reputation as an irrigation authority, he was heard with attention, however, when in the spring of 1904 he came to the district with a plan for the organization of a Water Users Association by the settlers and the purchase of the California Development Company's plant. From this time on he was so officiously active that he attracted attention and later developments in regard to him were watched with interest.

The Soil Report Declared Cantaloupes an Impossibility

The Daniels' bill was at length reported favorably, but Smythe's opposition had been noted by many and it was augmented by a mysterious but powerful agency which appeared immediately after the bill had been reported. This agency was supposed at the time to be the Reclamation Service. Without much question the House laid the bill on the table and it was never raised. The only action taken by Congress was on April 19, 1904, when a joint resolution was adopted by House and Senate directing the Secretary of the Interior, the superior officer of the engineers of the Reclamation Service, to "investigate and report on the subject of irrigation and irrigation rights on the Colorado river and to ascertain and fix the rights of individual water users there." President Heber was tactful enough to express himself as pleased with this action, but it promised little. He asked for bread and they had given him a stone.

Dr. Oliver M. Wozencraft

Meantime trouble was brewing for the Development Company in the Valley. Fomented by a few self-appointed champions, of whom Smythe was the ring-leader, a rebellion against it was growing rapidly, being joined by the dissatisfied, of whom there were many. The gravamen of the matter was that the California Development Company had failed to keep its promises in extending its system, had been dilatory in supplying the needs of the people, had been extravagant in its use of money, and was even then grinding the faces of the poor settlers. That there was much meat in this complaint is incontrovertible: coming when and through the agencies it did it lacked the ring of sincerity. Several years later when the affairs of the Company were dragged into the light of open court, items were found in the accounts of the Development Company showing the payment of large sums to one William E. Smythe for "literary services," and there are those unkind enough to say that this irrigation expert and "friend of the people" was seeking to arouse the settlers against the water company for the sole purpose of bringing about a sale of the latter's property.

However that may be, this was exactly what was urgently sought during that year 1904. Numerous mass meetings were held and at last, having resolved themselves to the extent of some four hundred closely typewritten pages, and made inflammatory speeches ad libitum, the "people of the Valley" appealed to the Reclamation Service to buy out the California Development Company. To this end they organized the "Imperial Valley Water Users Association" in June, 1904, with F. G. Havens as chairman, appointed committees, memorialized Congress, and opened communication with Mexico and with the Department of State of the federal government with a view to finding out what could be done in the way of an international treaty in the premises. It was a great summer for meetings. The settlers counted it dull, indeed, when there was not one convocation to the week, and endless "minutes of the last meeting" and "We do therefore resolve" documents were entailed. I. W. Gleason, R. E. Willis and C. S. Lombard were appointed a committee to take up with the water corporations and the Reclamation Service the matter of a sale to the government in behalf of the settlers, and these men labored in season and out to accomplish something.

The plan was to incorporate the Water Users Association for $12,000,000, and make an agreement with the government whereby the latter would purchase the property of the California Development Company, place the system under the management of the Reclamation Service, and carry on the business of serving water by the method employed under any of its projects. There was a deadlock, however, between the settlers' committees and the California Development Company as to how much the latter should receive as remuneration and this lasted until, at a much advertised and largely attended meeting in Imperial, July 25, 1904, President Heber offered to arbitrate. The proposition was received with the wildest enthusiasm and the people of the Valley were so worked up by the inflammatory speeches of their leaders that they believed all their economic and social troubles had been suddenly dissolved.

One week later it was abruptly announced that the "deal was off." The rocks on which the ship had grounded were three: Heber insisted on a remuneration based on the value to his Company of its plant; the committeemen wanted impartial arbitrators chosen; and there was a difference of opinion as to who should pay the large amounts at that time being demanded as damages by settlers who had been deprived of water. The greatest gloom swept over the district.

The passing of that week, however, brought forth another proposition from Mr. Heber which sent the spirits of the settlers skyward again. He proposed to sell out for $3,000,000!

The settlers immediately accepted the offer and wired Congress to that effect. There was a grand celebration that

The Dredges Played a Large Part in Reclamation included speech making, a barbecue, and fireworks. But the charred sticks of the rockets of that joyous occasion did not fall with greater speed nor strike with an emptier thud than did the $3,000,000 transaction. In the autumn the officers of the Reclamation Service, Senator Bard, the ubiquitous Mr. Smythe, and others visited the Valley and made a careful inspection of the situation; in January, 1905, Congress turned the proposition "down cold."

Meantime a most bitter internecine warfare was occupying the field. The officials and engineers of the Development Company were almost at their wits end for lack of money and because they saw their investments of years slipping away; the settlers were suspicious of the Company and suspicious of each other and the nerves of every person were worn to frayed edges. Factions grew up and split into parties; these parties quarreled among themselves and with each other. It was the outbreaking of the pioneer spirit of individual assertiveness in which leadership had not been established.

The net result of the whole embroglio was the fomentation of a bitter animosity against the California Development Company. From that year forward it became an object of distrust, and many of its troubles in the spring of 1905 were the natural issue of this suspicion. It was at this time that the quarrel between Heber and his supporters and Rockwood and his friends, broke into open flame. Their friendship was dissolved and from then until the tragic death of Mr. Heber in a fire in Goldfield, Nevada, they pursued different courses.

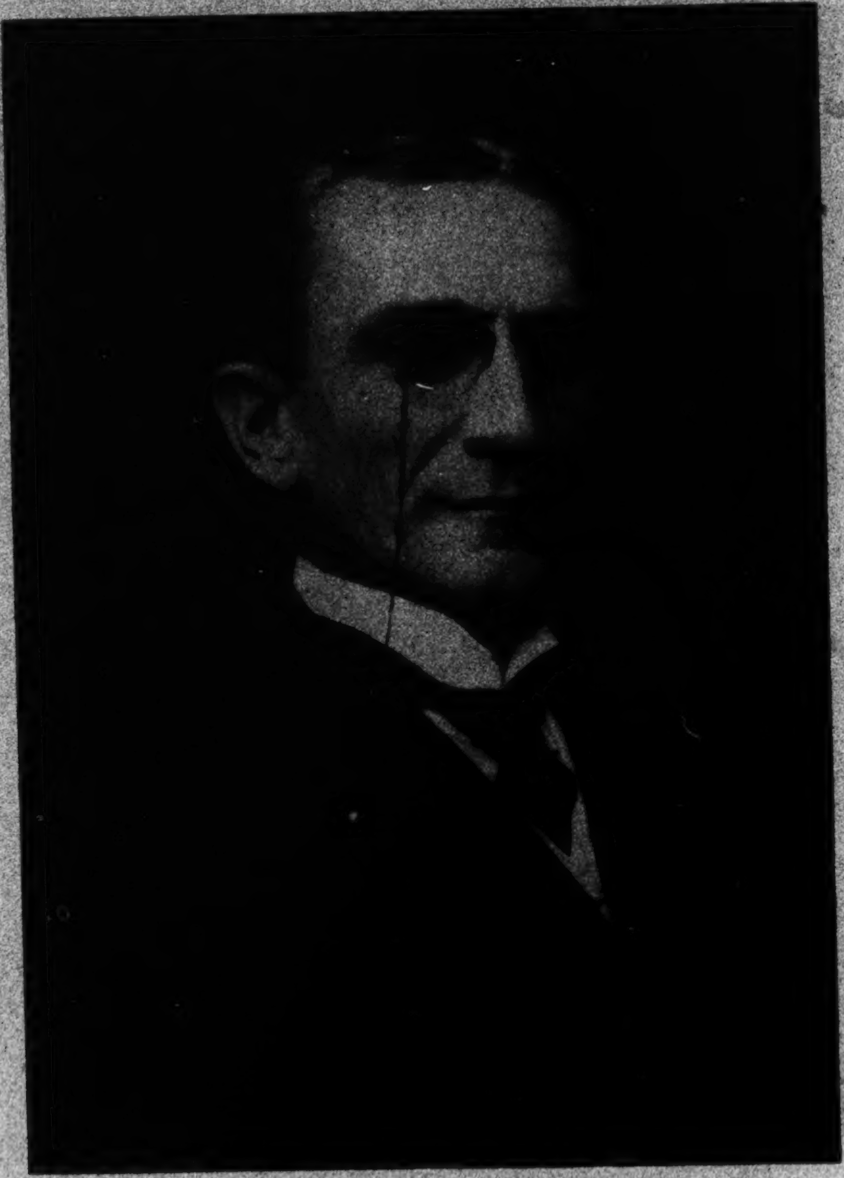
The overflow of 1905 and 1906 forever dashed aside the hope these ambitious and faithful promoters had of making a profit from their investments of years of time and thousands of dollars. The resultant expense at the heading was only one item: the settlers who were deprived of water, whose lands were flooded, or whose ranches were cut and carried away by the cutting back of the two channels, filed heavy claims for damages, and, to cap the climax, the New Liverpool Salt Company commenced suit for half a million dollars for destruction of its plant in the bottom of the Salton sea.

It was on June 20, 1905, that a deal was consummated with the Southern Pacific for $200,000 with which to close the break in the river, this money being given as a loan and the railroad being assigned a majority of the stock of the California Development Company in trust as security. The deal was made through necessity, and it was with no surprise that it developed later, in the words of the facetious snipe-hunter, that the stockholders of the California Development Company were "left holding the sack."

Hard things are said always of men who achieve. Hard things have been said of most of these men who labored thus to make the California Development Company a success and made possible the reclamation of the Colorado desert. But Rockwood sacrificed himself and his professional success; Chaffey proved himself one of the great builders of Southern California; Dr. Hefferman lost his accumulated competence in a vain endeavor to stem the tides of misfortune which, again and again, swept against the frail bark that carried all their dreams.

Heber devoted his energies to the cause with an enthusiasm and ability that were at times heroic. Up to the year 1905, when the control of the California Development Company passed into the hands of the Southern Pacific, no man was more closely identified with all the divers branches of reclamation in the Imperial Valley. He was in touch with the engineers, aided in colonization, faced numerous financial crises and struggled through them, served, both when he himself was president and under the leadership of George Chaffey, with unstinted zeal and undoubted loyalty. Time after time internal troubles threatened the safety of the whole edifice and Mr. Heber was too active in all things to be able to avoid his share in these embroglios. Yet today there is probably no man whose name is so honored by all those in any way connected with the company from its inception as is Mr. Heber.

The story of his connection with the Company from its organization until its decadence has been told in other chapters. That he made mistakes is indisputable, but it must be remembered that he, with all the other leaders, were perpetually subject to insidious attacks both from within and without the corporation, and that no single action was ever taken that was not denounced by some faction or other or opposed by some powerful agency. Some of those actions referred to as "mistakes" and others characterized as "blunders" were so because of opposition that caused complications afterwards; others were wrongly impugned by interested or selfish persons and made to appear that which they were not. That Mr. Heber worked



The Death of Anthony H. Heber was a Personal Loss
to the Settlers

always for the reclamation of the Imperial Valley has never been disputed and cannot be. And in the final analysis this was the desideratum.

After his withdrawal from active connection with the California Development Company Mr. Heber, while retaining many interests here, extended his activities to other fields, becoming particularly interested, early in 1906, in property in Goldfield, Nevada. Thither he and his son, Ernest, went on two occasions. On the second trip the two were guests in the Goldfield hotel, a newly erected and apparently substantial building that was the pride of the Nevada deserts.

But on November 17 the place caught fire, and in a strong wind burned like tinder. Mr. Heber was in his room and there he was caught as in a trap and burned to death. The news of the calamity stirred the people of Imperial Valley with a sense of a great personal loss, for Mr. Heber's name had been cleared of all imputations of wrong months before and no person but held for his memory the highest regard.

Rome T. Perry, an associate and friend, connected for several years with the office systems of the Development Company and of Water Company No. 1, wrote shortly after Mr. Heber's death: "To me it seems that in his case 'twilight and evening bell, and after that the dark' came all too soon. The reason for this I do not know. I cannot understand. But I believe that when the partisanship that has for years and is now rending the Valley has been stilled, and when the people understand, as understand some day they will, how he labored in their interest, how he sacrificed his own for their good, they will see that the prosperity they enjoy is the fruit of his labor and they will rise as one man and to his memory erect some fitting monument that through the ages will endure."

At the close of the decade one issue of supreme importance confronts the people. The beginning of settlement, reclamation, organization, and improvement are passed: there remains the task of reaching an ultimate solution of the water problem. The California Development Company is doomed; in fact it may be said that it has already ceased to have entity. The acquisition of its property and the exercise of its functions by the Southern Pacific did not come about by purchase and will not, for the railroad corporation does not want an irrigation system. The Development Company has been declared insolvent, and early in 1910 Col. W. A. Holabird, of Los Angeles, was appointed its receiver. Under authorization of Superior Judge Cole, of Imperial county, Receiver Holabird has issued more than $300,000 worth of receiver's certificates to pay for work done in improving the system and strengthening it against encroachments of the Colorado at flood. Meantime, however, this work is done over the vehement protests of the men who own the bonds of the Development Company, and of all those persons who, as judgment creditors of the bankrupt concern, hold claims for damages. It is unthinkable that those expenditures will be allowed to go on; it is quite certain the Southern Pacific will advance no more money to finance the unwelcome guest it has lodged in its corporate blue room.

Just Across the Mexican Line is a
Wonderful Mesquite Forest

Another weakness developes. It is contended by able lawyers that the California Development Company had no right to exercise many of the functions it assumed. A clear notion of the line this attack is made upon may best be gained by a brief consideration of the case in the United States District court at Los Angeles known as the case of "The California

Development Company, et al. against Imperial Mutual Water Company No. 5." In this suit the Development Company is seeking to regain possession of certain of the capital stock of No. 5 which, in 1905, was turned over to the officers of No. 5 by President Heber with the agreement that it should be used for raising money to extend No. 5's system. The Development Company asserts, in the complaint, that Heber had no authority to make this arrangement, that No. 5 has not used all this stock for the purpose for which it was turned to them, and that its officers have refused to pay the California Development Company a certain amount of money due for stock already sold by Water Company No. 5. The plaintiff corporation asks that all the stock be turned back to it, that all money accruing from the sale of stock by No. 5 at any time be demanded of it, and that No. 5 be compelled to pay also certain arrearages for water.

The line of defense established by solicitors for the No. 5 Company brushed aside trivialities and localized questions and struck straight at the very heart of the California Development Company and at its rights, not only to the relief prayed in the bills of complaint, but to life itself. In a general way the case of the defense is presented in an able brief prepared by Haines and Haines, counsel for No. 5. After stating briefly the physical conditions surrounding the California Development Company and its Mexican associate the brief accepts the conclusion that La Sociedad de Yrrigacion y Terrenos de la Baja California is "a mere agency" of the former Company and "is entirely controlled" by it, and that the organization of No. 5 Water Company was entirely at the instance of the Development Company and with its own officers the dictators of the mutual organization, which latter had no initiative, owned no stock, and profited nothing in any way through organization.

They then set forth that, since the Development Company owned then and owns now no arable nor irrigable land, its appropriation of water from the Colorado was only to dedicate it to the public use; becoming, in other words, nothing more nor less than a common carrier of the water. But, they aver, "it is clear . . . under all the disguises of these written agreements, and beneath all the brave show of these successive contracts, . . . that the . . . company has, with relentless tenacity, clung to the holding in its own hands of the power to

Stroven Apricot Orchard
Six Months Old

One and a Half Years

Two and a Half Years
Wonders Can be Done in Horticulture

dictate to what individual users it would furnish water, and at what lump price for the right to receive it; and that it has also established an annual rate of fifty cents per acre-foot, to be paid and collected for its use over and above the price exacted for the right (to buy water, i. e. No. 5 water stock) and that it has appropriated all moneys in any way realized, whether from the sale of stock, to which it has annexed the supposed water right, or the moneys received from annual rentals, to its own use and benefit. It does not change this fact that it used some part of the large sums obtained from the sale of stock, and from water rentals, in the construction of its system of works for diverting, conveying and distributing the water."

Concerning the contract between the Mexican company, whose existence as an entity the defendant ridicules, and the No. 5 Ccompany, whereby the latter was to relinquish to the former all unsold No. 5 stock, the brief continues: " . . . they (No. 5 stockholders) were left like lost sheep without a shepherd, to be gathered into the corporate fold only after they had been well fleeced."

Coming to what they conceive to be the "fundamental question," counsel say: "Under the circumstances the fundamental question arises upon both these complaints, whether it was within the power of the California Development Company or of its agency the Mexican company, or of its creature the Imperial Water Company No. 5 or of all of them in concert, to bind . . . the unknown persons, who should thereafter enter upon and settle these lands, to submit as conditions precedent to sharing in the public use of this water, so absolutely necessary to existence upon and improvement of their lands, to exactions which are not only not recognized by the constitution and laws of the state, but which are, on high grounds of public policy, excluded and penalized by the constitution and statutes." In brief, they conclude: "From the foregoing . . . the ownership of stock in the California Development Company itself, although it is the parent and paramount corporation in the whole enterprise, and holds control over the diversion of the waters from the Colorado, could, by no device, have been made of any value as giving a right to the use of the water diverted by it, because such right can be acquired only by each user for himself, by his own merits in making the beneficial application of the water to his land. It further appears that, not only is the ownership of such stock worthless as a muniment of title to the use of water, but that, for a corporation in charge of the public use, to make the purchase of stock in such corporation a condition precedent to the use of water at the annual rates, and to refuse the water for failure to purchase, is in violation of the constitution and statute of the state, and is visited by express provision of law with liabilities for damages . . . How could the purchase of stock in such a landless and waterless corporation (as the California Development Company) have the slightest virtue to confer the right *to share in the public use to which this water was dedicated?*"

Imperial's High School is Imposing

More than one acute legal mind is now struggling with the problem of striking at the heart of the California Development Company, but most of them have, thus far, been foiled by the adroit interposition by the corporation's attorneys of the M exican company, with its rights and prerogatives, granted and held under foreign government. Several plans for beating down or going around this guard have been brought forth: perhaps no one has a more tangible case than that presented by Judge F. C. Farr, of Imperial, who alleges the California Development Company to be an involuntary trustee of the property of the stockholders in the mutual water companies. This rather novel view of the situation is brought out by Farr in his complaint filed in behalf of A. L. Story and others against the California Development and the No. 5 Imperial Mutual Water companies.

Going for authority to that principle of law which sets forth that any person who holds or uses property unlawfully taken from another, or who holds and uses property which, by equity and law, belongs to another, that person is in reality a trustee of the property in question for the rightful owner.

Such trusteeship, Judge Farr asserts, exists in this case where the stock of Water Company No. 1, rightfully belonging to the stockholders of that Company, was voted from their control and custody and turned over in entirety to another corporation without any compensation being granted them. The Story complaint asks that the Development Company be declared an involuntary trustee, that an accounting be compelled for all moneys, stocks, and other property held for the rightful owners, the No. 1 stockholders, and that a receiver for the trustee corporation be appointed.

It may be seen from these references that the attempt to cause the dissolution of the bankrupt Company is neither sporadic nor ill considered. It is, on the other hand, determined, organized and well financed. Should everything stand as it is now with reference to the water situation the settlement of these questions of law might leave the people of the Valley without a parent company and with a hopelessly muddled group of local distributing organizations.

Finally it must be recalled that, in the spring of this year of 1910, Judge Robert Lovett, the new president of the board of directors of the Southern Pacific railroad, declared that the California Development Company must be disposed of at once, so far as the railroad corporation is concerned. This means that it will be given to the sheriff for sale at auction. Gentlemen, who will bid?

The Heart of the Industrial Section of the Valley is in El Centro

Will it be some strong financial institution, eager to gain possession of a business that might, with proper financing, be made a dividend payer equalled by nothing of its class in the history of finance?

Will it be the Reclamation Service of the United States, with a costly dam and headworks at Laguna, anxious to saddle the expense of that system on any people, no matter what their previous investments in water stock and rights have been?

Or will it be by the people of the Imperial Valley, organized at last, and at last brought to an appreciation of the fact that their lands aggregate a value twenty times that of any irrigating system which may be operated for them, although their lands are worth nothing at all without such a system economically managed and run in their interests?

For the irrigation system of the most marvelous reclaimed district in the world, gentlemen, what are we offered?

Graphic Illustration of Land Building by the Waters of the Colorado is Found in Some of the Ditches. In this Case the Two Mud Dams Shown in the Foreground Were Built Up in a Channel Eight Feet Deep and Rose Above Water Surface in Four Months.

CHAPTER X

THE UNITED STATES GOVERNMENT AND ITS RELATION TO THE VALLEY

Up to the year 1903 the promoters and people of the Imperial Valley had little to do with the United States government in a direct way, save as regards the perfunctory acts performed in connection with filing on public land. On the other hand very few of the officers and agents of the government knew of the colossal enterprise being attempted here, and save on four points had no data concerning the great stretch of rich country lying in the region they called the Colorado Desert. These four sources of information in Washington were the reports of several early explorers of the region; the field notes of the surveys of 1856 and of 1890; the soil report of 1902, and the report of government engineers concerning the feasibility of irrigating the lands embraced in this area by use of the waters of the Colorado. The work of the early explorers has been touched on; the surveys of 1856 and 1880 and the soil report are referred to later in this chapter; and the findings of the third report are epitomized by Congressman Hitchcock, of Nebraska, who, in the debate in Congress (1904) on the passage of a bill to legalize the use of the waters of the Colorado for irrigation, said: "I am satisfied that if it had not been for the initiation of the California Development Company the Imperial Valley would never have been reclaimed. The government engineers went there, studied the situation, came back and reported it would cost $10,000,000 to irrigate this Valley. Acting on this report the government did nothing."

Although this year of 1903 the Reclamation Service (then a part of the Geological Survey) was in its infancy the government, as regards both legislative and executive branches, was taking a growing interest in the salvation of arid lands in the West. The great work of Theodore Roosevelt, Senator F. J. Newlands, of Nevada, and of Congressman Frank W. Mondell, Wyoming, was just beginning to tell and there was felt throughout the nation a marked satisfaction in the birth of organized reclamation. That private enterprise was even then outstripping public bureaus was little known until, in the spring of 1904, a bill was introduced by Representative Daniels of Riverside, California, in the national Congress, intended, in a general way to declare the Colorado river waters more valuable for irrigation than for navigation, and to confirm the rights of those now using the water for the former purpose under state laws, but specifically to legalize the appropriation of 10,000 second-feet from the river by the California Development Company. The bill had an extended hearing before the House committee on the irrigation of arid lands. William E. Smythe's activities began at this hearing, but in spite of his objections in behalf of "a large number of settlers in the Imperial Valley," President Heber's urgent requests for Congressional action to give stability to the finances of the corporation prevailed and the bill was reported favorably. In April of that year, however, it was defeated; the opposition arising, it is still asserted by many in the Valley, as a result of the activities of the Reclamation Service, which saw in the measure a menace to its plans for the future on the river.

Such Reclamation Interested the Government

This aggressive attitude of the Service can scarcely be said to be an historical fact, yet so often is the charge made and so bitter is the feeling in many quarters over it that we feel scarcely justified in wholly ignoring it. The animus for the opposition of the Service, according to C. R. Rockwood, lay in the fact that "the engineers of the Reclamation Service advanced the theory that no canal from the Colorado river could be a permanent success except that a diversion dam across the river be constructed which would raise the water and would allow them, by means of the sluicing head that it would give, to wash out the silt that would drop in the canal. Not only, then, would the continuance in successful operation of the Imperial canal disprove their theory that a dam was necessary (and thereby question the necessity of the expenditure of the amount of money that the Laguna dam would cost) but the cost of the Laguna dam was to be so great that it would put too great a burden on the farmer unless they could gain possession of the Imperial enterprise, and by so doing carry the Imperial canal to the Laguna dam and thereby make the farmers of the Imperial Valley pay the major portion of the cost of that work." (Calexico Chronicle Magazine, May 1909, p. 21.)

New "10-foot Drop"

Without doubt if any jealousy ever existed it was due to this fact and to the other that the prior appropriation, under California state laws, of 10,000 second-feet, by the California Development Company might some day stand in the way of projects of the Service now embryotic.

That certain high officials of the Service held hostile feelings cannot be gainsaid. George Y. Wisner, consulting engineer of the Service, was quoted by the Detroit Journal, early in 1904, as making a sneering attack on the integrity of the promoters of the California Development Company, and in September, 1905, before the Detroit Engineering Society, he said (according to Associated Press reports of the speech): "Within twenty years thousands of people who have taken up government lands in the Imperial Valley will be driven out by water, their homes and fields forming the bottom of an immense inland sea. The cause of the coming catastrophe is poor engineering in diverting the course of the Colorado for irrigation purposes."

In the Pacific Monthly (April, 1907,) L. C. Hill, another consulting engineer in the service, after writing that "it can serve no good purpose . . . to criticise . . . the criminal act which today places the homes of thousands of our citizens in the shadow of impending ruin" says, (p. 476) "No controlling works were provided (at intake No. 3) and this temporary expedient finally brought about a catastrophe which now spells bankruptcy to the Company and total loss of property to the settlers. It is said that Mexico was not informed of this new heading and it is to be hoped that this is true, for it was a criminal piece of work."

In addition to these and other published statements, made voluntarily by engineers who might have been expected to attend more strictly to their own affairs, there were numerous acts, a few overt but more covert, tending to increase the Valley settlers' distrust of the Service. That the ruinous soil report of 1902, the delay in securing a re-survey of the Valley, and the subsequent deterioration of the California Development Company, with other incidents that have served to impede the progress of this section, may be laid at the door of the Service, is not believed; but on the other hand, it is hard to avoid the conclusion that officials of the bureau have in very many ways striven to cast reproach on the private enterprise here represented.

F. H. Newell, director of the Service, replying to a personal letter written by the editors and asking bluntly whether or not there is any feeling against the Imperial project, says: "Your letter has been read with considerable surprise. . . You seem to be under the impression that the Reclamation Service is something like a corporation, with an independent policy, able to initiate and proceed freely along lines of its own, and guided by likes and dislikes of its principal employes. On the contrary it is more nearly comparable to the engineering branch of a large railroad system. It carries out the orders of higher officials . . . . is governed strictly by laws and regulations and, within the limits thus prescribed, there is relatively little latitude . . . There has been no feeling either for or against the California Development Company expressed by the officials of this service."

On two occasions Mr. Newell has been a visitor to the Valley and some of the hopeful things he has said concerning its future will be found elsewhere. It has never been charged that he has been personally diligent in the apparent attempt to discredit the promotion enterprise here, but that men of his service have succeeded to some extent in so doing is hardly to be denied.

The circular (Number 9, Bureau of Soils, Department of Agriculture) prepared by J. G. Holmes and Thomas Means after an investigation of the soil of the Imperial Valley made in the fall of 1901, has been repeatedly referred to and disposed of in previous chapters. That the boyish investigator, Holmes, was sincere in his work is no more disputed now than is the conclusion that he was over-impressed with a sense of his own importance and not sufficiently impressed with the fact that soil analysis and practical soil cultivation cannot be depended on to bring one to identical conclusions. In the last ten years Holmes has gained a riper judgment and is now highly considered by the men of his profession.

Probably no factor has been so potent for the undoing of settlers in this Valley as the governmental delay of the resurvey of the lands here sought for entry and reclamation. As early as April, 1900, C. N. Perry, with a crew of thirty assistants started a survey for the California Development Company, tying his work to known corner-stakes on the Southern Pacific railroad line near Flowing Wells and driving south. Mr. Perry had been through the desert before, in 1892-3, in fact, as assistant to C. R. Rockwood, and he was aware of some of the difficulties to be encountered. He did not, however, reckon with the principal one, for no engineer knew of that: namely, the hopeless incongruity of the so-called surveys of 1854-6 and of Brunt in 1880.

They say that the survey of '54 was made in the back room of a saloon in Yuma, but as a matter of fact, a number of the stakes of that survey have been found. When James Gadsden negotiated the purchase, from Mexico, of a strip of territory along the southern edge of Arizona, his stipulations were that the south boundary of the purchase should be a line running from El Paso on the Rio Grande to the mouth of the Colorado River. It is probable that when the surveyors struck the dreary waste of sand and sand hills almost at the end of their journey they were too glad to accept the statement of some passing Indians that the mouth of the Colorado was many miles north of their course, at Yuma. At any rate they made a sharp deviation, fixing the international boundary line a few miles south of that settlement on the Colorado and then going in there to replenish their stores. Their contract specified the completion of their line to the ocean, but it is not inconceivable that one long look from the top of some eminence like Pilot Knob showed them, as they thought, the utter futility of a careful survey of the desert between them and the coast range of mountains and that after making a pretense at a survey, they put back and finished their field notes in executive session.

C. N. Perry was the One Leader Who Never Lost Poise

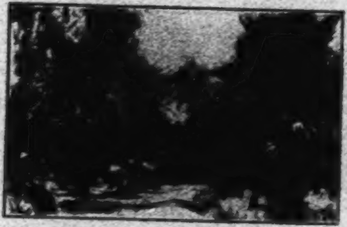
In 1880 the Brunt survey was of the country lying south of the fourth standard parallel. It was assumed that this survey was correct and that, in accordance with Brunt's statements, the corners established by it were tied to corners established in the survey of 1856. But when Engineer Perry began his attempt to reconcile the corners of the Brunt survey and the field notes of the survey of 1856, he discovered that something was radically wrong. Unwilling to abandon the task the surveyor, whose reputation for careful and reliable field work is the envy of many of his fellows in the profession, decided to carry it on independently of the former lines and in his report he so stated. At that time this survey, known as the Imperial Land Company survey, was authorized by the Imperial Land Company to be used as a basis for filings and although this was patently unlawful and poor practice it was so readily accepted by the officials of the Los Angeles Land Office and any other standard would have been so difficult to secure, that it became the measure by which practically every filing in the Imperial Valley was made.

In the spring of 1892 a petition was presented to the Secretary of the Interior and later to Congress, asking for a re-survey of this district, and in July 1, 1902, Senate Bill No. 148 was passed and approved, authorizing the re-survey. The Secretary of the Interior was named as the responsible officer for the work but not until one year later was the contract let. Six months more passed before two surveyors, Henderson and Friel, arrived in the Valley and commenced operations in the field. They remained about 60 days and after their departure the settlers could learn nothing of the progress of the all-important work until November, 1904, when W. O. Owen, an examiner of surveys, arrived. He was uncommunicative but on a second visit, made in February, 1905, he stated that the Henderson and Friel notes were to be accepted, adding the disheartening information that these surveys were only of township lines and that a new survey of sub-divisions was yet to come.

This was but a few weeks before the expiration of three years from the passage of the bill authorizing the re-survey and in the meantime all lands in the Valley had been withdrawn from final entry, which meant that no patents would issue. Washington was besieged with petitions and letters and that summer bids for completion of the work were advertised for. In September those received were rejected and a month later others were called for, resulting in the successful award of contracts in April, 1906, for surveys of the claims in the district "by metes and bounds." This Commissioner's order was later revoked and it was not until 1908 that the survey was finally made, the field notes accepted, and the plats drawn. At the time of writing some of the land within the district has not yet been re-opened for entry, and the issuance of patents has but just been begun.

This delay is by no means the only unfavorable feature of the situation. Between the several surveys made are many important differences: excess strips of varying widths run between townships; and in comparatively few cases is a ranch found whose area was exactly what it appeared to be on the records. To add to the resultant confusion the Los Angeles land office, under whose jurisdiction all questions of title originate, has been administered by officials with widely varying views on important matters arising before them. The most notably inconsistent rulings made by this office were those handed down under the regime of Frank C. Prescott, who held the position of Register for five years prior to the spring of 1910. Both Prescott and his predecessor, Register Cruikshank, accepted the filings of applicants who used numbers

Holtville Celebrates Each Christmas With a Barbecue and Fiesta under the Imperial Land Company survey; Prescott went farther and accepted assignments of entries without regard to the validity of the original entry; both of these acts were later discountenanced and repudiated by the general land office and by the courts. In addition to these complications and those arising from the mistakes in surveys were numberless other technical irregularities and it is small wonder that entrymen, a large number of them ignorant of the laws and unadvised, made egregious blunders in preparing their early papers and in their attempts to comply with the law. Had a firm and dignified official been at the helm in the Los Angeles land office it is highly improbable that these errors would have occurred or that the endless tale of conflicts and contests over land and land boundaries now being counted by special agents of the government would ever have come into being.



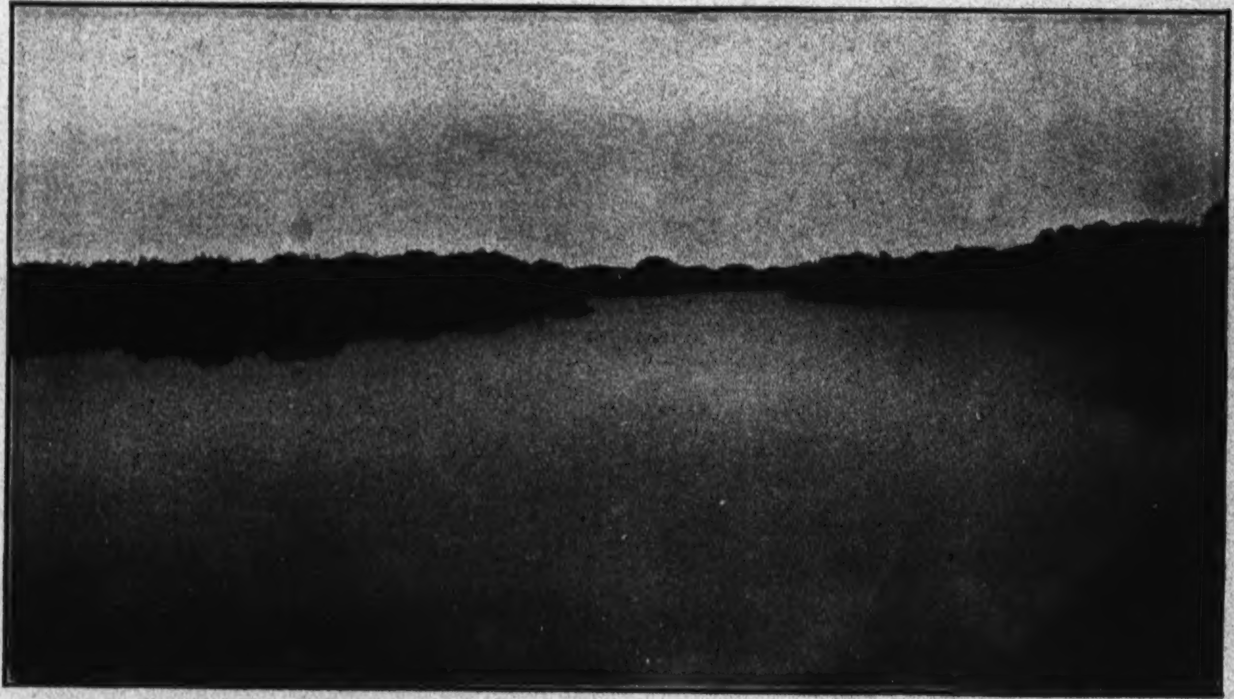
The Holtville Park is Imposing

An act known as the Flint bill for the relief of many of the complications above, so far as they refer to assigned claims, was passed by the Congress of 1909-10 through the efforts of Senator Frank P. Flint and Congressman S. C. Smith.

The Flint bill to relieve settlers was anticipated by several months by an entirely different project—that to relieve many of the settlers of their hard-earned ranches altogether. Whatever the land grabber and professional speculative contestor of land rights has to say for himself very little good can be said of him. In other parts of the West where government land has been ruthlessly stolen contests have been not only restraining but punitive in their effect. But in the Imperial Valley practically no land has been dishonestly acquired by the men who are now engaged, or ever have been engaged, in the diligent attempt to reclaim it from its desert condition. Unlike other territories this district presented no rich field for speculation or for hasty exploitation. Dishonesty flourishes but poorly in the midst of a desert waste and in the main the men who acquired lands for reclamation did so with the best of intent and with the highest motives.

But when they had turned the desert into a garden there came a class of men whose technical knowledge rather exceeded their ethical sensibilities. The reclaimed ranches of the Valley were prizes rich enough to tempt these men to investigate titles very closely and, aided by the inconsistencies and blunders of land office officials, they found many ranches where technical errors had been made either in filing, purchasing from original entrymen, or making proof of work done. Contests were filed on the rights of many settlers to hold their land and for a time it appeared that many honest men would lose their homes which they had with difficulty and suffering wrested from the wastes. But very few of these contests were finally sustained. Neighbors turned in to aid those whose rights were attacked and comparatively few have lost in the final appeals of the cases. One Sigel Skinner, a professional contestor, had an oranized system, operating boldly; while others have been more sly, urging tools to the work or selling information concerning defects to newcomers that the latter might avail themselves of the illy-gained line of attack. One of the most interesting developments on this line came when two of the contestors fell out and greatly augmented our knowledge of their methods in the course of their bitter attacks on one another.

Many of the contests filed by these fellows are still in litigation, but decisions have been rendered on two important points: one that an innocent purchaser will be protected; another that the provision of law that a citizen cannot file on more than 320 acres of desert land does not apply to the extent of denying him the right to assign his first entry without profiting at all thereby and to then file again. The former decision was reached in the case of Sigel E. Skinner vs. John E. Davis; the latter in the case of Harrington vs. Patterson. There is at present a very determined fight being made in Washington before the Land Commissioner to secure the reversal of a bad ruling by the Los Angeles Land Office in the case of Samuel C. Bone vs. E. H. Rockwood. In this case the Los Angeles Land Office ruled that, contrary to the usual procedure of local land offices to date, it is unlawful for a person to file on land, assign the filing



Above Sharp's Heading is a Beautiful and Placid Stretch of Water Inviting to the Boatman and the Fisherman to another, and file again; this under the provision of the Desert Land Act to the effect that no person shall hold more than 320 acres under that act. A very large number of the best ranches in the Valley are now held by entrymen who took them on assignment from other persons who had made it a business to file on land, cover it with water stock and sell it, repeating this operation several times. If the local land office decision is allowed to stand it will invalidate the claims of the present holders above referred to. An organized attempt to secure a reversal of this ruling is being made at the present writing.

It has been stated (and tenable ground for dispute of the statement has yet to be established) that there have been no extensive frauds perpetrated on the government by entrymen in the Imperial Valley. In 1908 it was asserted by the United States District Attorney for the Southern District of California, Oscar Lawler, later Solicitor-General for the Department of the Interior at Washington, that an organized conspiracy for defrauding the government lands bureau had been unearthed and, in pursuance of an investigation of this alleged conspiracy, indictments were returned against Frank N. Chaplin of Holtville, David Chaplin of El Centro, the Oakley brothers of Los Angeles, H. W. Blaisdell of Los Angeles, F. C. Paulin of Los Angeles, Arthur Kemper of Los Angeles, and Paul Mc-

At One Time the Railroad at Salton Was Nearly Out of Commission

Pherrin of Los Angeles, charging them with engaging in conspiracies organized with the intent to defraud. The complaints alleged technical infringements of the law; the meat of the charges being that the men named had hired "dummy entrymen" to file on public lands in the Valley, had themselves covered the lands thus obtained with water stock, and had sold them at a profit.

Defendant Blaisdell pleaded guilty and was fined $5,000, the Defendants Oakley pleaded guilty, but asked clemency on the ground that they had been misled by the customs of the local land office, and one of them was discharged while the other was fined $250. Defendant Kemper pleaded guilty and was fined $250. On the other hand Defendant McPherrin and the Chaplins engaged counsel and went to trial before a jury. The action was one of the most costly ever prosecuted before a Southern California court, and was quite the longest, being continually at bar from September 23 to January 20. The jury found the Chaplins guilty but disagreed as to McPherrin. They recommended extreme clemency and their recommendation was strengthened by a petition signed by practically every person in the Imperial Valley, praying a light sentence. United States District Judge, Olin Wellborn, sentenced the two brothers to pay a fine of $1,000 each and to serve nine months in jail. The case is now on appeal.

While there was a patent case of infringement of the letter of the law it is contended by the accused men that their sole intention was to encourage settlement in the Valley and to dispose of water stock they had acquired in the course of work done for the promotion of the extension of the water system in the district. They were not allowed to show before the jury that the practices of which they were guilty, and which were characterized as criminal by the prosecution, were practices common enough under the lax rulings of the Los Angeles Land Office, but such was undoubtedly the case.

Concerning the relations between the United States government and the Imperial Valley there remains now but one point to be mentioned. This is a large one, but at the end of the decade it is one of the few large matters that are entirely unsettled and that the future must determine for us. It concerns the control of the headstrong Colorado.

In his special message to Congress January 12, 1907, President Theodore Roosevelt said that in the Valley, a country where "much of the land will be worth from $500 to $1500 an acre, or a total of from $350,000,000 to $700,000,000" the settlers were dependent on the Colorado absolutely and that no private enterprise could permanently insure their safety and well being. He asked Congress not only to promise to return to the Southern Pacific railroad the amount of money that would be required at that time to close the second crevasse in the dikes at the heading, but to go farther and appropriate sufficient money that the great river might be forever restrained from its erratic wanderings.

In his characteristic style the "strenuous president" went right to the heart of the matter. Not alone the Imperial Valley, with its great present and its illimitable future, but the town of Yuma and its surrounding country and the very Laguna dam itself, depend absolutely on the harnessing of the river. Neither the settlers in this Valley or in the neighborhood of Yuma, nor the Reclamation Service project engineer, nor the California Development Company, nor the state of California and the territory of Arizona, are responsible for the control of the Colorado. The vagaries of the river threaten the well being of thousands of citizens and the security of thousands of farms and homes in the country and that government which is organized to protect, as well as to rule, must face and solve the problem.

An international commission, of which Engineer L. C. Hill is the member from the United States and Senor Fernando Beltram Y Puga the member from Mexico, was appointed on recommendation of President Roosevelt, to study the necessities of the situation, but no report has as yet reached the public. Private advices from Washington state that this commission is active, but it may be long before definite action is taken. Meanwhile temporary protection is afforded by levees built by the California Development Company.

[Just as these pages go to press, there comes the gratifying news that on the last day of the session of Congress President Taft sent a special message to Congress asking for an appropriation to control the Colorado river, with right to carry the work into Mexico, and a bill authorizing the President to use one million dollars for that purpose was rushed through both houses. Thus for the first time this river be-

Previous Floods of New River at Calexico had Remained at the General Level of the Ground

When the Great Flood Came Upon the Valley it Spread Out Wide at Calexico comes a government charge, and that this act will restore absolute confidence in the future of Imperial Valley is taken as a certainty.—Ed.]

The claim of the Southern Pacific for $1,500,000 for the closure of the second crevasse at the heading, was before Congress for three years. Considerable opposition developed and the claim was materially cut in committee, but in the summer of 1910 it was finally allowed.

The Town of Calexico was Protected by a Dike

CHAPTER XI

THE COUNTY OF IMPERIAL

It has been our endeavor, in carrying forward the many (and sometimes tangled) threads of our story, to preserve intact a chronological history of the development of the Valley along all lines. If this has not been done it is because the tangents circumstance compelled us to take have led far away from the main theme and we have stumbled in retracing our steps, but we have here to deal with a different factor in development. The most noteworthy step forward made in the Valley in those anxious months between the summer of 1905 and the closure, was the foundation of the town of El Centro.

When W. F. Holt gained the townsite rights in the Eastside districts it was generally supposed that the railroad he almost immediately projected would be run directly to Imperial. Some business differences with the owners of that townsite, however, led Mr. Holt to purchase, by the use of government lieu scrip, a section of land more nearly due west of Holtville, (or Holton, as it was first called) at the Southern Pacific railroad flag-station of Cabarker. Mr. Holt projected a town there which the promoters of Imperial were anxious to forestall; they therefore made overtures to him which ended in an agreement that the Holton Interurban line would not stop at Cabarker but would run over the Southern Pacific tracks four miles north to Imperial. After several months, the interurban line being then pratically completed, all negotiations were broken off and the original transaction nullified. Holt sold the townsite of Cabarker to a Redlands syndicate which immediately began exploiting it under the name of El Centro. The growth of El Centro was not phenomenal at first, but so substantial was the construction of the earliest buildings, and so earnest were its promoters in their purpose to create a model town, that a high grade of residents formed the nucleus from which, later, a strong citizenry grew. The Holt corporations—

In 1906 El Centro Began to Take Form

In 1910 it Was a Busy Young City

Holton Power Company and Holton Interurban Railway Company, had their offices in El Centro and the ice and electric plants of the former and the shops of the latter were located there.

In Imperial a notable event was the establishment at this critical time of the first daily newspaper in the valley, by Edgar F. Howe and his sons, Arminger W. and Clinton F. Howe.

Throughout the Valley there had been, even at the most discouraging times, a steady development along almost every line. When it was assured, in the spring of 1906, that the Southern Pacific railroad would close the crevasse, a new impetus was given this development and although there were crises at the intake which plunged the settlers into the deepest gloom and caused many to abandon, temporarily, all plans for improvement or progress, these were forgotten when the critical times were passed. When the Rockwood gate went out in October many thought the end of the Valley was in sight: the hysterical joy when the closure was announced early in November only accentuated the succeeding despondency of December 7 when the second crevasse was reported. In fact the real depression of the Valley occurred with that event. The great engineering problem of turning the river had apparently been solved, at a stupendous cost and after repeated failures, in November.

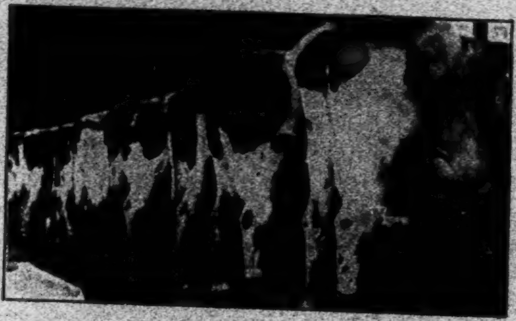
In the Left Foreground of This Imperial Street Scene Stands the First Newspaper Office Building

If the river could overcome the efforts of the best engineers in the Southwest, backed by unlimited capital and the facilities of a railroad corporation, what hope was there for the district? For a few weeks it was an unanswered question, even the most optimistic feeling the depression.

But this protasis of despair had its logical apodosis. If a second break *could* be closed, within a reasonable length of time, it followed without argument that the future of the Valley was secure. Many doubted that it could be, but when it was, the enthusiasm of all concerned for the possibilities of coming years was unbounded. They ran the gamut of hope in the district as readily and rapidly as they had that of despair: in an hour after the closure of the second break was effected faith unbounded filled the hearts of the people. Values doubled in a day, merchants telegraphed heavy orders for stock, ranchers bought horses and implements, and added to buildings and fields. Characteristically American, they forgot the river in a week, and in a month few of them could remember the date of closure.

The immense volume of business that had accumulated during the period of doubt went forward with a rush. A great many transactions had been held in abeyance pending results at the river and these were now consummated. Never before had the settlers realized so fully as now that they were suffering from an inconvenience of government that would hamper the future of the district seriously. We refer to the great distance by rail between the towns of the Valley and the county seat of San Diego county, the port of that name.

San Diego was ever a large county but in the days of its organization it was exceedingly doubtful that more than a score of persons would ever live off the railroad line in the great desert territory east of the coastal mountains. With the opening of the Imperial Valley, however, a different situation was presented. Less than 120 miles across the mountains it was, by rail, almost 300 miles from the towns to the official center of all legal and similar business. In older settlements this difficulty might not have been so serious—particularly if the lands had been private and could have been bought and sold by mail or through agency of others. But dealing as they were with the government the settlers of the Valley found themselves compelled to go to the government offices for many pieces of business that might have been transacted in a county clerk's office. On the other hand the county officials, to whom the residents must look for attention to their affairs, were outlanders with no interests here and with little appreciation of the needs of the district. Those of them who came to the Valley were quite as much inconvenienced by the distance to and fro as were the settlers. The County Superintendent of Schools, Hugh Baldwin, used to drive across the mountains to visit schools, stopping at many districts en route, covering the Valley and then driving on across the desert to the far away settlements at Picacho, northwest of Yuma, in the mining territory. With such difficulties in the way it is not strange that the visits of the county officials, save just before election time, were few and far between.



J. W. Belden's Herd are Thoroughbred Holsteins

One other factor is entitled to consideration. The residents in the Imperial Valley were so set away from the rest of the world, so cut off from it in every sense of the word, by desert wastes and mountain ranges, that there grew up among them a distinctive comradeship. No matter whence they came, a short residence in the Valley, in touch with its ambitions, its ideas and its enthusiasm, fused new comers with pioneers and there developed what may well be called the Imperial spirit. This predicated pride of section and its concomitant, ambition. Ambition to make this section a unit in government as well as in purpose was natural: it became a powerful force in the early movement for county division.

Although obviously loath to lose the rich territory east of her mountains, San Diego county had no choice when ambitious

Imperial residents presented to her Board of Supervisors the petition provided for by law, setting forth all competent facts in regard to the new country and its claim for separate government, and on July 9, 1907, the Board adopted a resolution calling for a county division election. The line of division between the two counties as proposed was the section line lying between Ranges 8 and 9 east of the San Bernardino meridain; the territory embraced in the projected county had an area approximating 4000 square miles, with a population estimated at 10,320. The date set for election was made August, 6, 1907.

There ensued one of the most bitter contests for the location of the county seat in the history of the Southwest. The primal issue, whether or not the new county should be formed, became a secondary matter; in fact it was almost completely lost sight of in the struggle between two towns for the prestige and the business the location of the county's offices was expected to bring. Imperial, the pioneer town, and the logical location of the seat, was anxious for the honor, but to El Centro, the new townsite four miles south, it meant practically life or death. With the advantage years had given Imperial

Imperial's High School Auditorium Embodies the "Spirit of the Valley" augmented by the acquisition of the business of the county El Centro would have fared poorly. It was a desperate struggle on her part and she won, although by a margin so narrow that a re-count of the votes was asked and at one time a contest of her legal rights was seriously considered by those opposing her. This was dropped, however, and within a few weeks the excitement of the battle was forgotten in renewed commercial activities and in the boom of the winter of 1907.

Meanwhile, on August 12th, the Supervisors of San Diego county met, canvassed the returns of the election, found that the people of the proposed county were almost unanimous in favor of division, and officially declared the county of Imperial a unit of government. Two weeks later the newly elected board of supervisors of Imperial county met at El Centro in the Valley State Bank building at 10 o'clock in the morning, and organized by electing Supervisor F. S. Webster, of the Third Supervisorial district, chairman.

El Centro Began With a Freight Car Depot

No more eloquent comment on the temper of the people of the county could be made than to recount that, after ten minutes of routine business, Supervisor Clark moved the adoption of County Ordinance Number One, an ordinance prohibiting the sale or distribution, anywhere in the county, except under the most rigorous restrictions, of any form of malt or spirituous liquors. Ordinance Number 3, adopted August 28th, forbade all manner of gambling or betting. Two or three attempts were made later to gain concessions or exemptions under these laws, and many illicit places of business were and are open, but in the main the famous "Imperial Lid" has remained on from that day to this and promises to do so indefinitely. This prohibition enactment but carried on a policy adopted from the first, and it can be said that in all the territory now in Imperial county liquor has never been legally sold as a beverage.

Temporary quarters were secured for the county officers and with such expedition as was possible (very few of the men installed having more than a slight acquaintance with official business) the routine of the new government was entered upon. As an illustration of the make-shifts used in those days of beginning, a story of the first county jail may be illuminating. Sheriff Mobley Meadows, one of the most efficient, experienced and valuable men the new county had in its official family, secured for the detention and punishment of the wicked a small brick building opposite the temporary court house that had been used as a furniture warehouse, a real estate office and a dwelling, respectively.

This edifice had two rooms, one of which was set apart for the desperate criminals and one for the "short termers." The place was a magnet for the curious and, since it was too hot to close it up, was continually overrun by passers-by, anxious to gaze on the fearsome faces of the prisoners, most of whom were Mexicans, sodden with sleep. Meadows drove scores of people away but with the press of organization on him found this unprofitable and at last, in desperation, caused to be painted and ung on the door this sign:

"COUNTY JAIL"
"Keep Out."

Reference has been made to the great distance by rail which lay between the ranchers and business men of the Valley and the old county seat of San Diego. This distance continued to hamper the business of the new county but it soon became a secondary obstacle. A few San Diegans, exceptions to the general rule, began shortly to interpose obstructions in the path of the men who were trying to straighten out the old records of transactions and accounts in the Valley and to apply them to the new government. One of the most serious of these was met by the county treasurer whose demands on San Diego county for the share of moneys belonging to Imperial county were answered first with evasion and temporizing and later with frank refusal. In September, the Board of Supervisors in El Centro appointed its chairman, F. S. Webster and the District Attorney, J. N. Eshelman, a brilliant and aggressive young lawyer, as a committee to take up with San Diego the fight for the rights of the county. These men made several trips to the coast and after some delay succeeded in forcing the old county officials to a sense of the fitness of things and to a settlement satisfactory to Imperial. For a time there was some hard feeling manifested against the old county but this very rapidly passed away and there grew up a bond cemented by the demands of their mutual interests between the citizens of San Diego and Imperial counties that resulted most profitably and happily to both.

H. E. Wilsie Was One of the Horticultural Commissioners

Very early in the history of the county a strong sentiment made itself felt for a system and organization that would forever keep from the agriculture of the rich Valley such diseases, pests, varmints, and vegetable growths as have proved the demoralization of older districts. One of the first acts of the new Board was the appointment of a Horticultural commission composed of W. E. Wilsie of El Centro, D. G. Aplin of Holtville and Francis Heiney of Brawley, and these men and their successors have labored in season and out to maintain a strict quarantine against dangerous importations. Later live stock inspectors, a bee inspector and other officers charged with the tasks of safeguarding the clean and healthy development of the industries of the Valley were appointed and given authority to cope with precarious situations. The result has been most gratifying. The pestilential growths and ills that have, in other sections, turned profit into loss all too often are practically unknown here and a constant war is being made on those few dangerous factors that have crept in. The two problems faced by the cautious and scientific ranchers of the Valley today are the extermination of Johnson and Bermuda grasses and the eradication of plant aphis, both of which are being studied closely and both of which already show signs of yielding.

In the close of 1907 the county offices were moved to a new building, erected by the supervisors to be used temporarily. A substantial jail building had been completed several weeks earlier and, although never taxed as to capacity, solved the question of safe and humane housing for the unfortunates placed under arrest. In 1909 a site for a permanent court house was decided on in an addition to the townsite lying west of the Date canal.

It has been a matter of grave diasppointment to many to find that the Imperial Valley is a respectable community. Not only city-bred youths with brand new Stetson hats, and bandana handkerchiefs flaming with their freshness, but magazine writers and adventurers have sought here to find traces of the "wild and woolly West." Theoretically they should be successful, for this is a pioneer country, one of the ultimate frontiers of the United States. We should have gaming hells, drinking places, cow-boys "shooting up" Chinese laundries, and those other prominent and popular marks of the border district. Alas, we have them not!

There is one strong and consistent reason for this: no desert is a fit place for an idle or dissolute man. When the Valley is reclaimed in its entirety, when every road is tree-bordered, the towns are large and prosperous and the essential "hand-out" is easy to obtain, when work is scarce and living is a solved problem containing no unknown quantities or powers, then we may have loafers on the streets, thieves in the by-ways and the American luxury, hoboes, one to each tie. The few objectionable characters in the district as we write are dilettante tramps, beginners who take work occasionally and then move on, as contrasted with the professionals who never work. These amateurs are welcome visitors many times, however, for when laborers are few and work is plentiful the rancher receives the worst specimen of the unwashed with open arms. Real workers are coming in in increasing numbers at the end of the decade and are rewarded with steady employment at good wages, and with many opportunities for self-help that they are denied in older communities.

It is impossible to avoid the conclusion that a factor almost equally potent against the two sins of laziness and lawlessness is the prohibition law. Of the comparatively small number of men "booked" at the county jail in the first three years of the existence of the county of Imperial, more than one-half are Mexicans, and of these the officers say almost half were arrested as a result of drinking liquor illicitly sold. Of the whites confined four per cent were in trouble for selling liquor, and at least fifteen per cent were charged with offenses committed while the accused men were in their cups. So small a number were arrested on charges of deliberate lawlessness that, considered in relation to the total population of the county,

From the First the Schools Were Permanently Constructed they are insignificant. These figures have to do with flagrant offenders against the law: the prohibition ordinances seem to be quite as discouraging to professional street loungers and loafers whose crime consists, not in doing wrong, but in doing nothing. Those creatures who, although frequently without "the price of a meal," are seldom without "the price of a drink," do not believe in prohibition.

The third factor militating against disorder is the temper and spirit of the settlers. Coming, as they do, for business, and with all energies bent to the one end of reclamation and cultivation, the residents of the Valley have little time for the incompetent and the incapacitated. Press, pulpit and public have united without formality in upholding the standards of decency and the influence thus created has discouraged settlement by undesirables.

The development of the county organization has been described. Concerning the towns and trading points of the county some reference has been made in other chapters of this narrative. Imperial was the first town and its beginnings have been studied. Calexico was really a camp for employes of the California Development Company, but grew apace with its contiguous territory and is now more important because it is the port of entry into Mexico by way of the Inter-California railroad line through Baja California to Yuma. The vicinity of Blue Lake was settled by San Diegans very early in the history of the Valley about the town of Silsbee. This town has had no large growth but is an important base of supplies. Brawley was a necessity when, in 1903, settlement became very extensive in that vicinity and its growth has been natural and rapid. Holtville was the base of supplies for the districts east of the Alamo river. It grew steadily, although at first it was necessary to freight supplies for its merchants across country from Imperial. The completion of the Holton Interurban line however, changed that condition. Holtville's real boom came at the close of the decade when some of her citizens, who had great faith in the project, raised money enough to sink a well for water. To the great surprise, not only of residents of the Valley, but of geologists and scientists who had issued the ukase that no artesian water existed in the Valley, water-bearing gravel was tapped at a depth of little more than 800 feet in January, 1910. Another well sunk nearby to a depth

Brawley in 1903 Presented One Aspect

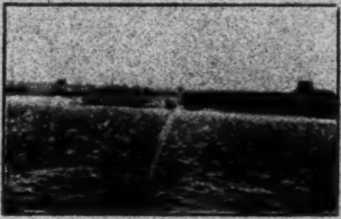
The Same Scene in 1910 Was Changed

of 1100 feet passed through the sweet water and entered a stratum of sand carrying water too salt to use, so that the lower part of this well was filled up and only the sweet water at the 800-foot level used. This discovery gave the district a great impetus. The soil of the Eastside district is incomparably soft and fertile, and there are many land owners there cutting up their holdings into small acreage tracts. The demonstration that artesian water is available resulted in a great demand for these small tracts and many wells were immediately started. Several have been uncapped at this writing and the future of the Eastside is very promising. In passing it may be said that an effort is being made to determine the extent of this artesian belt by drilling in widely scattered parts of the Valley but no law has as yet been established by these experiments that justifies a statement as to how extensive the belt is. It is not improbable that water will be found in many parts of the whole Valley.

Heber was established near the point where, as early as 1900, it had been planned to locate a town to be called Paringa. The latter did not materialize, but Heber is now becoming an important trading point. The Heber Collegiate Institute, an agricultural institution, is located here.

In the closing years of the decade several new towns were laid out and beginnings were made in settlements. Some of them give little promise of being more than trading posts for several years, while others have a logical call for existence. Alamorio, four miles east of Brawley in Water Company No. 5's district; Westmoreland, eight miles northwest of Brawley in No. 8 district; Mobile, five miles west of El Centro on the line of the projected San Diego and Valley railroad; Weist, a settlement several miles northeast of Brawley; and Meloland, a flag station on the Holton Interurban, are open for business.

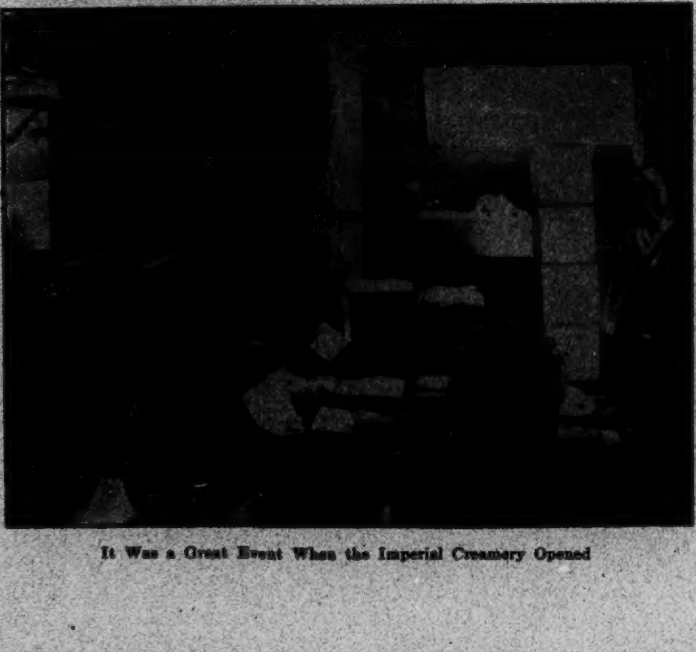
Of these towns and settlements Imperial was named for the Valley of which it was the geographical center; Calexico was a name concocted for it, combining euphonistically the words "California" and "Mexico"; while the border town of Mexicali was christened after employing the same method and reversing the order of the words; Holtville was originally named Holton to honor W. F. Holt, its promoter, but had to be rechristened because the postal authorities, as has been stated, expressed a fear that it would be confused continually with either Hilton or Colton, California; El Centro is Spanish for "the center"; Brawley was to have been called that in honor of J. H. Braly, of Los Angeles, formerly a heavy land owner in the vicinity, but because of a falling out between him and officers of the land companies it was named instead for a Mr. Brawley of Chicago, a friend of A. H. Heber; Silsbee was named for Thomas Silsbee, former owner of the land on which it was built on the shores of Blue Lake; Weist was named for a contiguous land-owner; Meloland was called that because its lands are "mellow"; Westmoreland was called after the suburbs of that name in Chicago, Indianapolis, Los Angeles and Watts, because it carries a good tang; Mobile was so denominated because it is hoped to make it the center of a cotton-growing community and the title is suggestive; and Alamorio derives its appellation from the fact that it is located east of El Alamo Rio—the Cottonwood River.



Holtville Boasts a Plunge of Artesian Water

It must not be supposed these are the only settlements in the county, which contains more than 4,536 square miles, and which extends fron the boundary line of Riverside county north of the Chuckawalla range of mountains on the north to the Mexican line, and from the Colorado river to the Coast range. It is frequently forgotten by the residents of the Valley (if, indeed, it is known to most of them) that there are within its geographical boundaries an Indian reservation and school, six valuable working gold mines and much of the apparatus and system of a $4,000,000 government reclamation project, together with a number of railroad flag stations. Such are the facts. The Yuma Indian reservation comprises 16,150 acres, of which 6,500 were thrown open to entry under the Homestead Act March 1, 1910, and immediately taken up. The land remaining is to be alloted to the Yuma Indians. This tribe, comprising about 700 members, of all ages and both sexes, is entitled to this land, divided equally among them. However, 350 members of the tribe engaged in a revolt against the government of the Indian School about the year 1895, and after driving the Catholic sisters who were then in charge of the school, off the reservation, they fled to Mexico where they now live. It is thought that many of these will not return and it is possible that more of the land in the reservation made for them will be diverted to the use of the public and thrown open for entry.

So much is said of the possibility of putting the water system of the Imperial Valley under the Laguna dam at some future date that it may be well to digress and outline the scope of the so-called Yuma project at this point. Twelve miles north of Yuma on the Colorado river the waters flow between two rocky headlands, Laguna on the Arizona side and Potholes in Imperial county. Between these rocks, which are one mile apart, the government has constructed a weir costing $1,650,000. This structure is not a dam in the sense that it is built to impound water, but rather forms a fixed spillway ten feet from the bed of the channel so that at all times water can be taken from the river through the sluice-ways at either end of the weir. These two sluiceways are built with the purpose of at least partially settling the water taken into the distributing canals, the water being skimmed off the top for the use of irrigators and the silt being carried back into the river with the surplus. As far as the project in Imperial county is concerned the total



It Was a Great Event When the Imperial Creamery Opened cost is something like $750,000 in addition to that of the dam. The latter is completed, as is most of the work in this county, with the exception of that on the California side of the syphon which is to carry water taken out at Potholes and sent through a main canal in this county, under the Colorado river itself and there distributed in the canals in Yuma Valley and later pumped up to the Yuma Mesa lands. It seems strange that river water should have to be syphoned under the river but the reasons for this are, first: that the only available site for a diversion structure is at Laguna; and second: that the entrance of the Gila river on the east prevented carrying the water in canals in Arizona to the Yuma lands, which are below the Gila.

The Brawley School is Built on Mission Lines

Two plans have been suggested for putting the Imperial Valley system under this diversion weir. One comprises a canal to run in a southwesterly direction from the dam to Sharp's heading, or thereabouts, avoiding entrance into Mexico; the other proposes a canal connecting Laguna and the Hanlon heading, and the abandonment of the Chaffey gate. There is one objection to the first plan and that is that it cannot be carried out. Forty miles of sand hills make that certain. There are several objections to the second plan, the principal physical objection being that it is exceedingly doubtful that a canal can be economically built to Hanlon's owing to the physical structure of the country. The work would have to be prosecuted along the base of Pilot Knob and it is reported that washouts from cloudbursts are of frequent occurrence there, making precarious the construction of any permanent ditch. Another objection is political: it would mean negotiations with Mexico for a continuation of the rights held by the Mexican Company, the California Development Company's other self. A third objection is that, at this time there are very few men in the Valley who will commit themselves to the plan of placing the Valley's water system under the United States Reclamation Service. The engineers of the latter have always believed that it is not feasible to divert water from the Colorado river as the

California Development Company does it, by gravity flow; insisting instead that some diversion structure is absolutely essential. The engineers of the California Development Company still believe otherwise and point to the Valley's system for proof.

The opening of the Yuma Indian reservation lands to settlement in March, 1910, above referred to, added 173 farms to those of Imperial county. These approximate 40 acres in extent and are productive and under an excellent irrigating system. While each of the farmers in this newly opened district must pay $65 an acre for water rights under the Laguna project, it is thought that they will be able to do this easily because they have fertile soil and are on the main line of a railroad, thus being assured of good transportation facilities. Most of the 173 new-fledged desert farmers have taken up their residence at this writing and in a year they will have added materially to the wealth of the county.

The Yuma Indian school is built on a historic hill and is largely housed in buildings erected by the United States army as long ago as 1848. At that time Generals Fremont and Kearney made headquarters there on several occasions and for ten years there was a large garrison there. Several battles with the Indians were fought and there are still pointed out some of the marks of those conflicts. The Yuma is quiet and docile now, but he does not seem to absorb American civilization rapidly, even when young, and there has been found a most discouraging tendency among the tribesmen to return to their heathenish ways when once the heavy hand of the school-mistress is removed.

Imperial county is largely desert waste and barren mountains, but it has been shown in this chapter that what it lacks in acreage it makes up in fertility and promise. It has reason to be proud of its government and hopeful for its future.

CHAPTER XII

PERSONAL ACHIEVEMENTS

"The truth is, that, rich as we are in biographies, a well-written 'Life' is almost as rare as a well-spent one; and there are certainly many more men whose history deserves to be recorded than persons able and willing to record it."

—*Carlyle.*

It is not difficult to relate, even exhaustively, the chronological order of the events going to make up a man's life. To say that the subject of a personal history was born in such and such country town, in this or that year, that he worked from early boyhood at one occupation or another, that he married, that he entered upon a certain vocation and that he was successful, may add a great deal to available data from which to publish his rating in the business world or on which to base the legend on his tomb. But one might, if one were stupid enough to care to do so, read many volumes of such cataloguing and still know very little of the true part played by men in the greater and more important history of the march of events. No man may say when or how he shall be born, none may choose but live his allotted time, and the manner and time of death is no more to be selected than it is to be forecasted. Wherein, then, lies the virtue of a recitation of facts that are generally the same in the life of every man?

As far as possible, in this story, we have abandoned the beaten paths of biography and tried to give a few illustrations of successes achieved in Imperial Valley, as typical of the successes of the people as a whole. One of the shining examples is W. F. Holt.

Mr. Holt is the most noted man who has grown wealthy through legitimate promotion in the Imperial Valley. He is commonly rated as a millionaire, although this may be slightly exaggerated, and his holdings in the Valley are more extensive than those of any single individual. If he were the most prosaic figure in the world his achievements would win him a place in these pages; but he is not. He is a virile, many-sided, able business man; a faithful and tireless worker in any good cause which interests him; a man of unusual clearness of vision, and an optimist to whom many persons have looked in the dark and stormy days for encouragement and advice and who never yet turned a man away who needed a friendly word to put him on his feet again. He is not a philanthropist of the library-giving or school-endowing sort, but his benevolence runs in the more practical channel of keeping his money out in the sunlight where it can work for him and, in passing, touch the lives and needs of others. Holt has little to say about his theories of life, but it can be said of him that one is: "Providence helps those who help themselves." His contribution to a tramp would be a pile of wood first and double pay afterwards; just as his contributions to the needs of the Valley have consisted mainly in generous and sometimes extravagant expenditures of money to give the residents what they need to promote their comfort, convenience and competence after they have shown their ability to utilize it.

He made his beginnings in life on a farm in Mercer county, Missouri, about 1864, his father being a farmer. Young Holt stayed with the the job until he was of age, then he struck out for himself in a small business in Princeton, Missouri. Living neighbor to his father was Farmer Jones whose daughter, Fannie, was Holt's playmate from the time they were old enough to play. Other beaus and girls came and went for both of them but when Holt went into business he asked Fannie Jones to go in as half partner and she did. They made a go of it from the first and at the end of five years sold out and opened a small bank in Newton, near their homes. This bank was successful but Holt wanted to go farther west into newer country, so he sold his interest and moved on to Colorado, working at one thing and another there until the opportunity was afforded to start a bank in the then little town of Safford, Arizona. This institution was a success from the day the doors opened and it was only a few years before President Holt was offered a generous amount for his holdings. The chance to go on to newer country was too good to be resisted and Holt sold, making more on this one transaction than he had ever dared hope, in the old days, would be his.

This sale not only put Holt in possession of some capital,

W. F. Holt Looks Into the Future with the Direct Gaze of the Confident Man approximately $20,000, but it increased his confidence in himself and his knowledge of business methods to an appreciable extent. He moved to Redlands in the winter of 1900 and immediately began casting about for investment. Many propositions were offered, several he discovered himself, but the country was more or less settled up and, as the man says himself, his best fortune had always been in new country. It was inevitable that he should become interested in the Imperial Valley, then the abode of not more than twenty people, yet offering opportunities and giving promise of a future no ordinary standards would measure.

He was one of the first patrons of McCaulley's stage line in the spring of 1901, going to Imperial from Flowing Well to see the country. Before the temporary hotel was reached Holt was an Imperial Valley booster. With the same broad vision that had enabled Rockwood to span a decade in his thought in 1891 and see cultivated fields in the midst of the barren waste of that time, Holt looked across the vista of years and saw a country teeming with population and rich in business possibilities. Indeed, in many ways the two men are alike in that both saw nothing in the present of risk, deprivation, self-sacrifice, nor discouragement, but everything for the future of assurance. Rockwood, the constructor, saw a garden; Holt, the business man, saw an empire.

Holt thinks quickly when business is concerned and when he thinks he acts. He had business associates who ought to be interested, as he decided, and he wrote them telegrams within an hour after his arrival in Imperial. Then he went in search of the telegraph office. He was told that the nearest was at Flowing Well, 28 miles across the desert and that, when the dispatches were taken there on the stage, there was some chance there would be no one there to send them. Holt said, "The first thing I do is to build a telephone line."

The Imperial Land Company, very busy at that time taking money from the incoming colonists, were overjoyed at the proposition made them by Holt. He told them if they would give him an exclusive franchise and a little block of water stock as a bonus he would connect them with the outside world in sixty days. He received his bonus and Holt, who didn't know a switchboard cam from a voltmeter at the time, rushed poles, wire and instruments to the Flowing Well and made good his promise. In the meantime he saw an opportunity to start a newspaper and, on somewhat the same terms as he built the telephone line, installed a plant and engaged Henry Clay Reed, a printer and newspaperman of experience, to publish "The Imperial Press."

This was in the early spring of 1891. Colonists were pouring into the Valley and Imperial was the center from which all lines of business activity radiated. Holt was a churchman, as he is today, and, at an early stage in the development of the town, he interested himself with a number of others in the proposed organization of a church. Holt approached the land company with the project, laying particular stress on this point: that Imperial, as a town, and as the center of a growing community with a big future, should be founded on principles that would secure for all time a civic healthfulness; and that every encouragement should be given any enterprise that tended to promote ethics, morality and education. The members of the Imperial Land Company were likewise religious men and they heartily approved of the proposal and told Holt they would furnish water stock to repay him for building the church and supporting the minister. The edifice was built under direction of officials of the Christian denomination and Holt secured a preacher for the new building, paying his salary for two years, that the flock might have a shepherd from the first.

Some of the credit for this move belongs to the members of the corporation that furnished the stock that secured Mr. Holt but the idea and its consummation on concrete lines are his. Long afterwards he said of this incident: "The building of that church was of vastly more importance than any of us realized at the time. It was the spirit prompting such a work, at that early day, which is responsible in a large measure for the moral well-being of the Valley today. The organization for education and moral training was the foundation for greater things later and I firmly believe that the day we started to build that church, simple and poor as it may have been, we started to build here a civilization ahead of the times. I remember very well at that time riding out of the Valley on the stage with a number of residents of the Valley and a couple of well dressed men who had come down to look over the country. It was a hot day and the two city men were thirsty. They talked very loudly about their thirst and finally one of them remarked, with an oath, that he wouldn't put one cent into this country until he was assured that saloons would be admitted at once. I could not restrain myself. I said: 'Sir, we don't want you down here nor one cent of your capital, as long as you believe that way.' I didn't know what backing I would receive in this but somewhat to my surprise every man on the stage but the two I am speaking of applauded my sentiments. A peculiar thing about this is that today one of those two men now has thousands of dollars invested here and he has told me since that the best thing the Valley ever did was to prohibit saloons."

Shut off from the rest of the world by a barrier of desert and mountains, the Imperial Valley early began casting about for railroad facilities. Holt was quick to see the possibilities if a road could be put through but he was in no financial condition to attempt such a colossal task. However, he went to San Diego, in the summer of 1891, with Col. S. W. Ferguson, then general manager of the Imperial Land Company, and endeavored to interest the merchants there in the building of a road. The two were successful in getting a committee appointed by the San Diego Chamber of Commerce and this committee obtained pledges of no less than $50,000 for beginning preliminary work. Surveys were run by an engineer named Richards, three possible routes being mapped. It was proposed to run the road through the Valley, crossing the main north and south artery of the district at a point about where Heber stands today and running thence on to Yuma. It was found difficult to obtain sufficient capital, however, and Holt proposed another tack.

Conference with President Heber of the California Development Company and the officials of the Imperial Land Company resulted in a deal by which the two corporations undertook to provide Holt with 1200 shares of water stock if he would furnish the money with which to survey, grade and build a railroad from the town of Imperial to the most feasible point on the Southern Pacific main line from Los Angeles to Yuma, which point was about 28 or 30 miles distant. Holt had the survey made, engaged George A. Carter of Arizona to do the grading and started actual work. The Southern Pacific officials in San Francisco summoned President Heber there and in thirty days had completed the purchase of the rights of way and of Holt's work. Construction gangs were sent down from Los

Angeles and that winter the Southern Pacific sent its first train into Imperial.

Holt made money on this railroad deal. About this time he entered into a contract with the California Development Company to buy all the water rights for a district comprising about 14,000 acres on the east side of the Alamo river, running eight miles north from the boundary line. Holt purchased this block of 14,000 shares pretty cheaply, built his system, and built it well, then put the stock on the land and sold out. F. N. and D. H. Chaplin, school teachers from Pasadena, handled this business for Holt and all three made money. Holt says that the work and the stock cost him in the neighborhood of $125,000 and that he sold it at from $8.50 to $10 per share. It is probable that his modesty leads him to make his figures a little conservative and that, instead of $10,000 or $15,000 he cleaned up nearer $50,000 in cash with that much more due him in deferred payments and even now being paid him by the ranchers.

But if a promoter deserved his profit Holt did on this deal. In the first place, as we have said, he built a good system, as good as there is to be found in the Valley today. The district is now known as Number 7 and has reason to be proud of its canal system and the annual showing on its books. In the second place Holt furnished the California Development Company with a good deal of much-needed ready money, and this money was used by the corporation in the extension of its own canals to other parts of the Valley where water was badly needed. In the third place Holt was a national bank to the settlers. Many of them had little or no cash and could not have settled in the Valley at all if they had to make the required deposit of 25 cents an acre on their land to the government, provide homes, stock and tools and cultivate the ground and in addition pay even $2.50 an acre for water stock. Holt allowed them to buy on easy payments and in many instances actually known to the writer he gave settlers their stock for nothing, taking only their personal notes for payment in the future. Of course he was sure of getting his money if the Valley held out, as he had mortgages on the water stock. But if the Valley had proven a failure * * * !

It may be well to stop right here and sound the keynote to Holt's character and to his success in the Valley. It is faith. He believes in his country, he believes in this state, he believes in the Imperial Valley, but what is more vital he has implicit faith in the rightfulness and righteousness and rightness of human nature. He has said repeatedly: "I can't help believing in people. It's easy for me to do it, not only because it is my nature but because long experience with them has taught me that you can trust them. I have never been cheated out of a dollar in my life, have never filed a lawsuit to collect damages or claims and have never foreclosed a mortgage. And yet I've been loaning money or selling on credit all my life. I've found that the way to get your money is to give a man a chance to pay you. Where most people make a mistake is crowding a debtor when he can't or don't want to pay. That's where I give him time, play him off a little line, loan him some more money if I have to. He gets his feet on the bottom, blows a minute and then starts over again and swims in, with my money in his teeth. I believe in people." With this implicit confidence in men he goes into a business venture with a good liberal head start over the average business man. When he decided that the Imperial Valley was bound to be a success he banked everything he had on it. When many others were throwing up the job, laying off employes, selling out stock, giving away land, and moving to the Coast or to Ypsilanti, Holt was buying, building, enlarging, improving, spending money. He saw that the Valley was too good to go back to desert and that some way the obstacles were going to be removed. What he bought cheaply at those trying times he has sold since or is selling now at great big profits, the profits some over-zealous souls would take away from him now and divide among the less perspicacious, forgetting that labor is only one form of work and that it is legitimate and ethical to buy what is for sale and to sell when a purchaser offers.

Holt had better than his original $20,000 at the opening of 1903, quite a bit better. When he was through irrigating Number 7 district he had a little water left and it was running to waste in the Alamo channel. The promoter began to wonder if that water couldn't work, since everything else he had could, and he figured out a scheme for making butter, grinding meal and turning a buzz-saw with the waste. The only thing he had ever surveyed was the view from the top of a stage coach and the only thing he had engineered was a couple of banks and a railroad deal. So he hired a man who knew something about technicalities and this man told Holt there was between 500 and 1000 horsepower of electrical energy to be produced by the water if properly harnessed. Holt broached this scheme to a number of financial men of great astuteness and they laughed at him. No, they howled. So Holt bought a dinky turbine and a few feet of pipe, hitched a belt on to a dynamo and threw away his coal oil lamps. In six months a number of those smiling business men were hanging around the office of the Holton Power Company trying to buy some of the stock in that harnessed waste water proposition, but there was none for sale. Holt had done the impossible, put a water power plant plump down in the middle of a desert as level as a floor and produced therefrom electrical energy enough to light the district from the International boundary to the Southern Pacific right-of-way. There was some cause for that preliminary laughter, it is freely admitted.

The ball was rolling now. Holt couldn't keep out of the way of it and it rolled him up inside and went merrily forward without his doing much more than kick out now and then to guide its course. He bought a townsite near the power plant and another where the Southern Pacific railroad had put a water station and called it Cabarker (named for C. A. Barker of Redlands), which point was ten miles west of the power plant. The Holton Interurban railroad to connect the two towns came next. Later this townsite passed to a Redlands syndicate, which organized a new corporation with W. T. Bill as president, and the townsite was placed on the market under the name of El Centro. The name of the town of Holton was changed to Holtville because the postoffice department was afraid the town would have all its mail sent by mistake to Hilton or Colton, other California towns, and it grew apace. Holt built an ice plant and some car shops at El Centro, and the Redlands people opened an aggressive campaign for a real town. In the course of events, since Holt had not enough to do and was standing around with his hands in his pockets most of the time, the Redlands people made a deal with him by which he undertook to build a row of business blocks and a $50,000 opera house on lots provided by the townsite company. It required some confidence in people again, this building proposition, for at that time the total population of El Centro could have been seated in the passenger coach of the Holton Interurban, which is a combination baggage at that. But the county division and county seat elections put El Centro into place as the official headquarters of the new-born Imperial county and since that time the place hasn't stopped much.

Holt is blamed with a lot of things. As he says himself "The public has had quite a lot of mean things to say about me; some of which are true.'' But his principal fault is that he is too full of business. He works too hard to have time to sit around the corner store stove and whittle with the rest of the fellows, so when they get out to work they find the Holt fields are all plowed and the weeds in fence corners are neatly stacked for the match. Lots of people don't like Holt; lots do. One man has sold about $125,000 worth of property for him, making good commissions. This man says: "Since I have been doing business with W. F. Holt I have never had a written contract with him, never had a single dispute over money matters and in a number of cases where there was a difference in our figures he has accepted mine and paid me the balance. He is unquestionably the easiest man to deal with I ever met." On the other hand a capitalist who once tried to sell Holt a gold brick says of him: "Ever since my first deal with Holt I have had to watch him."

Of the corporations in the Valley with which Mr. Holt is associated the most important is the Holton Power Company, capitalized for $1,000,000, and having the following directorate: W. F. Holt, president; A. G. Hubbard, vice-president; W. G. Driver, secretary and auditor; M. M. Phinney and J. A. Shreck. All these officers live in Redlands and it is there that the principal business offices of the corporations are located. This company owns the electric lighting plants in the five towns in the Valley, also the three power plants, being the two water plants at Holtville and the steam power plant at El Centro, also the ice plant at El Centro, five cold storage plants in the several towns and numerous smaller pieces of property throughout the district. The capacity of the electric plants aggregates 2,000 horse-power, and there are 35 miles of main transmission lines and about 25 miles of distributing lines. The ice plant has a capacity of 25,000 tons a year.

The Holton Interurban Railway Company, with the same board of directors, has a capital stock of $200,000, and at present operates the ten miles of road between El Centro and Holtville. At this writing it is announced by Mr. Holt that within a few weeks he will begin the construction of a gridiron system of roads connecting the various towns of the Valley in admirable fashion, and bringing within shipping distance of a railroad practically every acre of ground in the whole district. The details of this immense project have not been finally announced at this date, but sufficient is known to fill the hearts of many an isolated rancher with joy and to give added impetus to the booms on in most of the towns of the district. Whether all these enterprises will be merged into one with the Holton Interurban Company's project is not stated, but one management for all is probable.

Two new enterprises are now receiving Mr. Holt's attention: the Imperial Valley Gas Company, and the Inter-California Land Company. The former is now serving the towns of Imperial and El Centro with gas for fuel and has met with a most generous patronage and hearty appreciation. The Land Company promises to be of large importance to the district. It has purchased 32,000 acres of land from the California-Mexico Land and Cattle Company in Mexico, on the line of the Inter-California railroad, with Cocopah as its point of entry, and the plan is to colonize this land which is particularly fine soil. The irrigating system, unit of farms, prices, and so on, have not as yet been announced but it is assumed that a large colonization scheme on very small farm units is planned. The company is capitalized at $3,200,000 and the executive committee of the Board of Directors consists of Mr. Holt, chairman, Harry Chandler and Gen. H. M. Sherman, of Los Angeles. The officers are: Mr. Holt, president and general manager, C. T. Wardlaw of Los Angeles, secretary, Charles Sayler, cashier of the Farmers' and Merchants' Bank of Los Angeles, treasurer. The board is made up of eleven financial pillars residing in Los Angeles and San Francisco.

In addition to all these multiplex enterprises Mr. Holt is a director in several important Los Angeles and Redlands corporations and of banks in Redlands and in the several towns of the Imperial Valley. For the future he has many plans, most of them concerning the Valley. As he says in a letter to the writer: "I believe it is a man's duty to enter into the life of whatever community he finds himself linked with, and whatever he may do to better conditions of living in that community, it devolves on him as a duty to do."

That W. F. Holt is doing his duty it remains for a future generation more fully to affirm.

With all his energy, faith and constructive abilty, Mr. Holt would have been unable to accomplish what he has without competent and intelligent assistance, and it is a source of much pleasure to the writer to mention, in passing, the invaluable services rendered Holts corporations by the General Superintendent, C. E. Paris. Amost from their inception the companies have been largely under the immediate care of Mr. Paris, and it is he whom the residence of the Valley deal with in the field. His tact, skill and technical knowledge are well known to all who have had business dealings with him; socially and outside his work shop he is a man of unusually charming personality. Thoughts of the Holt corporations, or references to them always carry with them an unconscious thought of Mr. Paris, also, and this digression is made purely for the sake of acknowledging his worth to the community on the one hand and many personal obligations on the other.

Mr. Holt was a true pioneer. In this connection it is of value to turn back a few years and find the names of some of those who were with him.

In November, 1902, the first Farmers' Institute was held in the new brick block of the Imperial Land Company in the settlement of Imperial and those present signed a roster. This book is now the property of W. E. Wilsie, of El Centro, and he very kindly furnished a list of the names of those present on that occasion. Comprising, as it does, a very fair roll call of the pioneers, the list is given below in full:

C. A. Frederick, Ray Edgar, E. C. Utz, Mrs. H. N. Dyke, Jas. B. Hoffman, Robert Harwood, Mrs. Mattie Gardner, Mrs. Leroy Holt, Mrs. Annie Young, W. F. Holt, E. L. Eggleston, J. H. Free, F. H. Wales, W. J. Mitchell, S. A. Adams, John C. Hay, Mrs. L. E. Srack, L. E. Srack, R. W. McIntyre, James Heathy, H. N. Dyke, H. E. Allatt, G. M. Young, Z. L. Gardner, James Boyd, W. E. Wilsie, John Elslee, O. V. Darling, D. D, Pellett, Emily Seegmiller, Mrs. Kate Brooks, John G. Brooks. E. A. Slane, Mrs. S. F. Adams, Rosalia Meadows, Olive Thayer, A. C. Gaines, Margaret S. Clark, Jean Grove, Walter Evans, Leroy Holt, Daisy Grove, Mamie Evans, Earl L. Banta, Mrs.

S. W. Mitchell, S. W. Mitchell, Fred Wales, Vear Mitchell, W. A. Edgar, Mrs. W. A. Edgar, Wilton P. Holman, Frank H. Stanley, William Elmensdorf, Ralph W. Hughes, Thos. H. Hughes, Mr. and Mrs. C. C. Manning, A. C. Ensign, T. P. Banta, H. C. Griswold, V. K. Brooks, R. W. Still, J. W. Shenk, E. L. Ranney, John Clark, W. A. Van Horn, Mrs. W. A. Van Horn, Susie and Ora Van Horn, Alice Gillett, Augusta Gillett, Angie Mitchell, Emma Mitchell, Lottie, Hester, Edith, Raymond, Eva, Mandie, Walter and Alfred Adams, Hattie Gillett, Renna Van Horn, E. N. Adams, M. J. Starks, Mrs. Starks, Elsie and Mrs. E. M. Adams, Mrs. Alice E. Duman, D. Nicolls, W. H. Horne, W. T. Horne, Mr. and Mrs. M. P. Grove; E. L. Wales, L. M. Dougherty, E. S. Lyons, Mrs. L. C. Vickrey, L. M. Van Horn, Jessie and Jennie Holt, Rena Elliott, A. C. Ferguson, Mrs. Ethel Ferguson, A. W. Cook, Mrs. A. W. Cook, S. A. Smith, Mrs. Hector White, Roscoe White, Archie Priest, Edwin Irwin, Guy Irwin, Teil Stephen, Ray Stephen, Fred Miller, Ray Van Horn, Hubert Van Horn, Ernest Mitchell, Charles Gillett, DeWitt Young, George Harris, Evert Van Horn, John Gillett, Tom Beach, Justus Beach, Fred Van Horn, Roscoe Beach, Romie Mitchell, Daniel Webster, J. R. Adams, Eugene Wales, F. Blackburn, J. F. Rutter, Carl Huddleston, Romaldo Barlage, Jean Irene Stacks, Frank Blake, Walter and G. W. Donn, Jno. Yount, W. A. Daggs, John Daggs, Ed. B. Moore, Ernest Van Horn, Mrs. Ed. B. Moore, Albert Hart, Mrs. D. K. Straight, Mrs. E. A. Dundon, J. M. and J. D. Huston, T. N. Kellogg, Charles Toney, Dr. and Mrs. J. C. Blackinton, F. T. Thing, L. A. Meredith, J. A. Williams, H. J. Cross, F. M. Chaplin, A. T. Plath, J. S. Snyder, J. H. Holland, L. F. Farnsworth, L. E. Cooley, M. C. Mitchell, J. E. House, S. W. Uts, C. B. McCollum, Harry Willard, J. R. Harris, A. H. Carrier, E. K. Carriere, J. K. Thomas, Senator L. Adams, J. D. Dunovant, W. Busby, Mrs. D. C. Huddleston, Mrs. G. E. Miller, Rev. G. T. Wellcome, J. A. Hammers, W. H. Hartshorn, D. D. Copenhaver, C. J. Schenck, E. M. Guier, J. W. Mills, J. A. Bonsteel, J. Garnett Holmes, H. J. Wilson, Jas. S. Jacks, W. E. Hogue, H. C. Oakley, J. E. Heber, George Fishbaugh, Edwin Mead, Charles Palmer, Thos. Brock, Mobley Meadows and Marguerite Beach.

The history of W. E. Wilsie is so full of achievement and activity, since his arrival in the Valley in October, 1901, that it is impossible to do more than touch on it, giving a sort of resume of his important and unselfish part in the development of the desert. In a reminiscent letter to the editors he says:

"I first reached the Valley in October, 1901, from the Ojai Valley, saw the possibilities of the new country, returned to my former home and made arrangements to make a final move. On the second trip I reached Imperial on a bicycle from Old Beach on April 22, 1902, my team and wagon, driven overland, having reached here a few days before, bearing all my possessions except my family. The latter I left at Compton until I should have a home ready for them. The first work I did in the Valley was to clear the brush from the Silsbee townsite and haul the stakes from Flowing Well with which to stake out the lots. That spring I joined the Oakley-Paulin Company in the organization of the Imperial Valley Farming & Milling Company, my part being to oversee the farming end. During the summer I hauled the rock for the foundation of the ice plant in Imperial and dug the first settling basin there. In August we gave a big watermelon social at which 250 people enjoyed a program and a feast of good things. It was the first large social event in the district.

The Wilsie Girl and the Palm by Which She Stands are the Same Age

"During November, 1902, I cleared, bordered and ditched the streets of Brawley, the only residents then being Frank Stanley and T. H. Kellogg. The following spring the town was laid out on a different plan and I did the work again.

During the winter of 1902 I farmed 300 acres on the west part of the Imperial townsite, and in May harvested and shipped three carloads of barley and one of wheat, the first grain cut by a combined reaper and harvester in the Valley and the first ever shipped out by rail. We located in April on the place we now own, 640 acres three miles west of El Centro and have it now under a high state of cultivation."

Mr. Wilsie's letter ends there. He does not go on to say, as he might have done, that he has, among other positions of trust, held the following offices: Director of the first creamery and the first stock breeders association in the Valley and president of the first cantaloupe association; director of the El Centro Creamery Company, of the first cotton company, and of the Imperial County Fair Association,; clerk of the Eucalyptus school district, and secretary of the library board of the same district; trustee of the Heber Collegiate Institute, first high school trustee in the Valley (Cuyamaca district) and for several years Horticultural Commissioner of the county. In the latter position he has performed most valiant and efficient service, for which the Valley people of the future will thank him more, even, than his neighbors do today.

When the population of the Valley comprised a half-score of men pasturing wild steers in the neighborhood of the lakes in the southwestern corner of the district, George Nichols became a "settler." There are few pioneers who antedate him: P. J. Storms, Andy Elliott, Arthur Ewens, Wilkins, being among them.

Probably no man has been more closely identified with the district from the first than Nichols, for he not only developed his own ranch but took a large hand in colonization, in aiding the newcomers and in all public affairs. Particularly in the neighborhood of the present settlement of Silsbee, he was among the leaders in all development work and in the organization of things so that co-operation and systematic development were possible. Under Supervisor Jaspar, who represented this section of San Diego county before the organization of Imperial county, Nichols was prominent in road and school district work, securing most of the rights-of-way for roads and laying out most of the old school districts for the supervisor. This work was highly important, but not remunerative and his fellow citizens were very glad to turn it over to Nichols who was more public-spirited than many.

His share in the colonization of the Imperial settlements was large. He brought more than 100 persons into the Valley, most of them from San Diego and its environs and practically all of these became interested in property in the Valley to some extent. Much of the vicinity of Heber was colonized by Nichols, who had the first real estate office in Imperial. His partner was San Hastings and the two did a big business. It is characteristic of many of the men of those days, however, that they were so anxious to boom the country they thought little of their own commissions and it is not unlikely that many locations or sales were made without profit to the firm.

In the spring of 1902 Mr. Nichols started work on his own place, an 80-acre ranch six miles southwest of El Centro. This piece is now highly improved and from the second year has paid dividends. Later Nichols obtained 320 acres in Number 12 and at the end of the decade is in a position to figure on adding another 160 acre piece which he says that he will do without delay. Having been in the land business since his arrival he knows as much, probably, as any man in the district about land values, and he is in a position to buy well for himself and to deal for others to their advantage. He is now in the real estate line in El Centro, with Ira Aten, another pioneer, as his partner.

"The first crop I know of in the Imperial Valley was a small patch of corn on the border of Blue Lake," Mr. Nichols says. "It was planted by a man named Wilkins and yielded astonishingly. In those days there were a great many cattle pastured on the desert grass that came up on the fringes of these lakes or on ground overflowed during the annual rises of the Colorado. The first alfalfa I ever saw growing here was a 30 acre patch on Diamond Lake grown by Arthur Ewens." When one goes about the Valley now it is hard to believe that ten years ago these scattered spots of green which Mr. Nichols describes as being the only thing of the kind when he arrived on the scene, were the first tilled acres where now there are tens of thousands.

Not more than half a dozen men have served so continuously in capacities of trust and importance for the Imperial Valley as has R. D. McPherrin. From a time shortly after his arrival in 1902 until the close of the decade he has never been entirely free of some burdens of a public or semi-public nature; his knowledge of the inside conditions of the growth of the district is second to that of no other person. Employed by the California Development Company first in a clerical capacity he was early made secretary of Imperial Mutual Water Company No. 1 in which office he served for several years. Later, having taken up again the practice of law followed before he came to the Valley, he was made attorney for the No. 1 company and in that capacity has had much to do in moulding the policies of the company.

An entire chapter might well be devoted to the stories Roy McPherrin tells of the early days. He arrived at Flowing Well about four o'clock one afternoon in the spring of 190– from Nebraska, with a young friend, and, as the two stood beside the tracks and watched the overland train disappear in a cloud of dust to the west and themselves turned about to look over a stretch of desert waste as far as the eye could see, they joined in a cordial and fervent wish that they were back on the train. This being clearly out of the question they turned toward the Imperial settlements, taking a McCaulley stage and reaching the camp of the California Development Company at dusk. "I remember well my costume," said Mr. McPherrin, when recalling those early experiences. "Fresh from the city I was resplendent in dark clothes, low shoes, a high collar and a derby hat. The boys in the camp looked up from their tin plates and watched me as I took my seat at the table with them as though I were an importation from a foreign shore."

The derby hat was soon discarded for a straw and the high collar quickly wilted but McPherrin cast in his lot with the pioneers and became a part of the force of unostentatious but picturesque men who were bent on taming the desert. Almost immediately the Development Company discovered that young McPherrin was too valuable a man for the field and they induced him to take up clerical duties, through which he shortly became familiarized with the inside workings of the entire development scheme. It is to be doubted that there is a more competent authority on the legal and business status of the several mutual water companies and the California Development Company, with its ramifications, than McPherrin.

Trained to the law he later took up regular practice, being the first attorney in the Valley. With his brother, Paul, who followed him West in a few months, he secured a piece of raw land on the road between Brawley and Imperial and there today they have a highly cultivated ranch. In 1909 the famous Corwin ranch, west of El Centro and Imperial, passed into the hands of a third brother, A. J. McPherrin, both places being managed by Roy McPherrin. Thus he has had a very important part in reclamation, as well as in the executive work of establishing a farming community in the midst of the desert.

[For a careful and helpful perusal of the manuscript of this volume the editors owe grateful acknowledgement to Mr. McPherrin.—Ed.]

A pioneer in the truest sense W. H. Hartshorn has a rare fund of stories concerning the early days, particularly those in which the town of Imperial came into being. Within a few days after the first tent house, a temporary hotel building and a frame store were erected, Mr. Hartshorn arrived from across the mountains to take a very important part in development. At the time the greatest single need of the district, after that of water was for ice, and Mr. Hartshorn was made manager of the plant erected by the Imperial Land Company to supply that want. Small as was the field and costly as was the manufacture of ice Hartshorn put the price to one cent a pound, at which price it remained for ten years, and the new comers to this then forbidding desert had a means for making the summer of 1901 and 1902 endurable.

Piping the city for water came next and Hartshorn superintended the work and turned on the first water used in the homes. One warm day in August, 1902, Superintendent Hartshorn came upon a gang of men in the bottom of a ditch in Imperial avenue struggling vainly with a connection which refused to be made. The "boss" climbed down in the trench and the "hands" climbed out and mopped their brows and looked on. In a few minutes the connection was made and Hartshorn went over into the shade of the porch of the new "hotel." "Pretty hot down there, wasn't it?" the loungers asked. Hartshorn said he hadn't noticed it particularly. They pointed to the thermometer, there in the shade. He looked and it registered 126°. "Then I did feel the heat!" Mr. Hartshorn says.

New residents began to pour into the little hamlet in 1902, particularly in the fall and there were many lines of trade and industry missing. One of the most important needs was for a transfer and delivery company and Mr. Hartshorn, with the water company, the ice plant, some real estate business and his own land to look out for decided he didn't have enough to do so he became the transfer company. The dray he bought was ordered especially for him and when it arrived and he hitched a big bay horse up with a shining new harness he made an appearance that attracted crowds (?) to the street. A few days later another gala event was marked by a procession down the street. The new churn for the Imperial Creamery Company arrived and Mr. Hartshorn in his capacity as the transfer company and Mr. Hartshorn in his capacity as agent for the Imperial Land Company and manager of the light and power companies and the ice plant, drove proudly down Imperial avenue together, the new 1500-pound capacity churn on the dray behind them.

The Pioneer's Animals Were Friends

Meantime the work of colonization was becoming very large and Mr. Hartshorn took an important part in this. He had a very wide acquaintance on the coast side of San Diego county and scores of persons came into the Valley at his solicitation, most of them to settle. He built one of the first residences in Imperial, was one of the earliest real estate agents, the first notary public, and one of the first farmers, his 160-acre piece two miles east of the townsite being brought to a high state of cultivation under his direction. In fact this place engaged his entire attention for several years but when it was once in Mr. Hartshorn leased one-half and turned the other to his son, then returned to Imperial, and went again into the real estate business. There is no more interesting spinner of yarns in the district than this same pioneer and many a long evening he beguiles inimitably with reminiscences.

The First House Was Rude

In June of 1901, J. H.

Holland made his first visit to Imperial, arriving in time to welcome the first water that flowed into the town. The following November, he came to stay, having made a tedious trip overland from San Jose, California, with stock and farming utensils.

But the Home Developed

For the first two years the time was spent in building canals, hauling freight from the railroad to Imperial, and in improving the farm. At the present time he has the farm well fenced, the greater part in alfalfa, and well stocked with hogs and cattle, besides a good dairy.

In an early chapter reference was made to the harmful plants that crept into the Valley during the first few years of its history and among them Bermuda, or the so-called "devil" grass was named. There is no disguising the fact that this grass is a curse where it is not wanted, but there was one man in the Valley who sought and found a use to which it might be put. He is D. W. Breckinridge, lord of 160 acres two miles west of Imperial. Mr. Breckenridge came from San Diego to the Valley in February, 1902, and bought a school section. He tried barley for the first few years and was moderately successful, but he was convinced there was a better forage grass. Search brought him to Bermuda grass and he sent to Arizona for seed.

On this pasturage he finished what were pronounced

The Hollands Live Now in a Bower of Green by buyers the best fat cattle of the season. Two years ago he bought a few sheep and these prospered exceedingly. In the winter of 1907 he carried 100 head of cattle and 300 sheep on his place and they turned off in the spring, when the grass began its early growth, fatter and better than any sheep or cattle in the adjacent country. For Bermuda grass Mr. Breckenridge claims a maximum period of growth each year, as much nourishment as in alfalfa, no tendency to bloat, minimum first cost, and heat and drought resisting qualities commending it in this climate.

Aside from his bravery in essaying a crop most men counted a pest, Mr Breckenridge rendered a service to the Valley in facing and outpointing a cowardly conspiracy to rob him of his lands on a technicality, thus thwarting the hopes of the plotters to carry through several similar buccaneering enterprises. When Mr. Breckenridge bought his ground there were five years' delinquent taxes against it and a tax title to it was gained by a land sharper. This man attempted to frighten the original holder from his ranch, but Breckenridge stood his ground. The contestor went into the courts, the owner carried the war into the enemy's country and secured eviction papers. Later he found perjury and fraud against the real estate man and swore to information making the situation exceedingly warm for the contestor. Court decisions finally came out absolutely in favor of the original locator, and the city man who attempted intimidation on a plain old farmer retreated, badly scarred and with forces demoralized. He has tried no other contests.

When one searches for the real pioneers of the Valley some honors in that regard must go to the Thing Brothers of Calexico, now engaged in the butcher and general merchandise business. Fifteen years ago they ran cattle up and down the floor of what is now the Imperial Valley, pasturing them, with hundreds of others, on the grass grown up after periodic overflows of the Colorado. They opened the first butcher shop in the Valley, a small market in what one of them designates now as a "ninety dollar hut", located at the California Development Company camp near the present site of Calexico. This was in the fall of 1902. Later they established a shop in the new town of Imperial, and for several years furnished the residents of the vicinity with choice cuts.

When Calexico began to grow they returned to the southern end of the Valley once more and re-entered the same business, killing their own stock and buying and selling cattle and hogs. With the development of the business of Calexico the brothers reached out, taking an interest in a general merchandise business which eventually they bought out in entirety. Being pioneers in the district, thoroughly acquainted with the needs of settlers, and with a large acquaintance among citizens of Mexico who trade in Calexico, they have been able to build up a most important and thriving business.

In 1907 they erected a fine two-story block in the business center of Calexico, one of the down-stairs stores being occupied by their meat market. The Thing block is the largest one in the southern end of the Valley.

Considering the number of hogs now raised annually in the Imperial Valley it is hard to realize how few have been shipped into the district for breeding purposes, but as a matter of fact statistics, while meager, are sufficiently complete to demonstrate that probably less than 1000 hogs have ever been brought into the district. This means that the scores of carloads that are shipped out every season are Valley-bred hogs, and the fairly high standard maintained speaks well for the quality of the breeding. The first carload of hogs shipped in for breeding came to Imperial in the spring of 1902; of the second carload W. A. Young, a pioneer living three miles southeast of El Centro, bought several to stock his new place. He has 320 acres of land, and from the small beginning in stock referred to he has worked up until he now carries 500 hogs and hopes by next year to ship 1000 a year.

Young came to the Valley in July, 1901, driving overland from Newhall, 32 miles north of Los Angeles. July in any part of Southern California is warm and Mr. Young had to make the drive mostly at night, especially the last few miles, and ten days were consumed en route. Young was poor, "pretty near broke," he says, but the new country offered great opportunities to him for he was an experienced farmer and a hard worker. It was several months after his arrival before he could get water but he went to work putting the place in shape and when water came he was ready for it with some 100 acres. He now has 160 acres in alfalfa and 80 acres in cotton, the balance of the piece being put in gradually.

When they first arrived the Young's lived under a ramada made of arrowweed shoots laid thatch-wise on a frame eight or ten feet high. These ramadas are familiar objects in the Valley, very few ranches being without one or more. It has been demonstrated that there is no better means of keeping off the direct rays of the sun and even the men who could afford to put up frame shades find the weed structures more satisfactory. However, even a good ramada will scarcely do for a permanent home and when they were able, which they were after a few months, Mr. Young put up a substantial dwelling house. The Valley has been a good friend to Mr. Young, who has made himself a competency in less than 10 years.

When there was much uncertainty in the Valley as to what agricultural lines would prove profitable, Dr. H. J. Fuller arrived from San Diego. Some thought wheat and barley were the only crops that would be feasible; alfalfa and hogs in combination struck others.

Dr. Fuller was thoroughly convinced of the possibilities of dairying. He returned to San Diego for a crack herd of Jerseys, and a business partner with whom he would start a creamery. He found his man in W. B. Hage, and in the cool of 1902, when the first crops of the district were being harvested, Dr. Fuller and Hage returned with the cows and Dr. Fuller's family, and began to preach dairying again.

It was slow work at first. Fuller had the dairy concession from the Imperial Land Company and they brought a small churn with them. But when that was installed, at considerable trouble and expense, there was no cream with which to make butter save that which Dr. Fuller supplied. In the first week of its existence the Imperial Creamery, from which the present establishment grew, made 37½ pounds of butter! Today they make 25,000 pounds in the same time.

Dr. Fuller handled the cream end of the work and he had his troubles. Day in and day out he preached dairying to the settlers. Meantime he drove his own string of 30 from place to place herding them and letting them forage. In the winter he rented a few patches of sorghum and on this they thrived. It was not until several months later that he had pasturage on his own piece of land, 200 acres west of Silsbee.

In 1904, Dr. Fuller organized the Imperial Dairyman's Association, the nucleus from which grew the present strong county organization.

Having seen this firmly established Dr. Fuller could turn more attention to his own affairs. He had started in with $1,100 and his dairy string; now he had a growing young ranch demanding attention and money. With large faith in the future of the country he put every cent of his little capital in the ranch and made it blossom. He bought town lots, dealt in things other people wanted, and made money. In the course of time he saw an opportunity to buy a drug store in Imperial, which he did. It made him money and in 1907 Dr. Fuller returned, in a way, to his first love, dairying, opening the Dairymen's supply house in Imperial as a side line to his other interests. The side line made him $5,000 last year!

Probably it was his faculty for seeing things coming that put Dr. Fuller where he is. He has side stepped disaster and fallen on the neck of good fortune. When he and his wife drove in here from San Diego the first time they slept in the present Imperial avenue under their wagon. Now they travel in an automobile and rarely ever sleep on the ground. Quite rarely!

Let the man who believes the frontier is gone and that pioneering died with our forefathers, read this brief story of some of the experiences of W. C. Raymond, a rancher owning a section of land seven miles north of Holtville. Raymond is a Canadian who went to Arizona several years ago and roughed it there until he heard of the Imperial Valley in 1903. He immediately saddled up and rode to the new district, keeping on the road after his arrival until he found the place he wanted,—a fine 320-acre piece in No. 7 water district. When he saw what he wanted he stopped and camped, beginning the work of improvement almost immediately.

Just when he was getting the place in shape the river came in, washed out the headworks of his system and cut him off from his base of supplies by tearing out the channel of the Alamo river. Raymond forded the river several times for supplies, in fact he and a neighbor were the

"A Time For Resting"

first to brave the flood and ford it with a team. Shortly afterwards he sold his place and moved up into No. 5 where he bought his present land. The property he sold is known today as the Painter and Ott ranch.

Meantime Raymond had worked for others in order to keep going, helping build a great deal of the No. 7 ditch system, levelling or helping with more than 2,000 acres of land, and running the first harvester ever operated on the Eastside. The first supplies he ever took to his No. 7 ranch were purchased in Imperial, at a cost of about $100, loaded into a wagon and taken around by way of Calexico and so to the ranch. Later Calexico and still later Holtville, were his supply points.

On the new ranch Raymond had many hard experiences, but he had by this time learned about all there was known at that day about the country and he was able to utilise his experiences in No. 7 to good advantage. He put 320 acres into barley and alfalfa, fenced it and began to raise hogs, proving this to be a staple industry. He handled 600 head last year and sold $7,000 worth in less than twelve months. In 1910 he put in 80 acres of cotton, which promises very well, and at this writing is getting ready more of his land for corn and for high cultivation this fall.

Much of the Valley had grown two or three crops before the Eastside district was reached by water, so that the development there began even later than the beginning of the decade. One of the first men to go on to that side to farm was W. K. Shrode, whose son, Lee, was the first child born there. Mr. Shrode took up 80 acres three miles northeast of the present site of Holtville, which was then nothing but a dream. He was not equipped to operate, however, and so rented a part of the Silliman ranch, one of the oldest in that section, and for a year conducted operations on that leased ground. With this start, both in money and experience, he went on to his own ground in 1904 and has made there a valuable and beautiful ranch and home place.

Shrode's experience is similar to that of hundreds in the Valley in that he came to the district with very little in the way of assets. Few had less. He drove across the mountains from Los Angeles in January, 1903, with a good team and wagon, 36 chickens, and one pig; very little more. In those days there were no supplies to be had nearer than Imperial and at least twice a month it was necessary to drive across country, fording the Alamo, and buy a stock of groceries and other provisions. It was a day of bad roads, worse even than they are today, since in many places they were mere trails across the waste, and many hardships were undergone by the devoted pioneers of the Eastside. When the baby came there were more frequent trips to be made, but shortly afterward a store was established in Holtville and that center grew rapidly, greatly to the relief of the settlers of the contiguous territory.

Mr. Shrode's place is in alfalfa, pasturing cows and hogs, with the exception of 20 acres which are set to vines. These are coming into heavy bearing now and promise to prove exceedingly profitable. The best of care has been given them and the vineyard is a beautiful sight. Shrode says that his years of hardship and privation are discounted by his success: he counts his property worth at least $8,000 today.

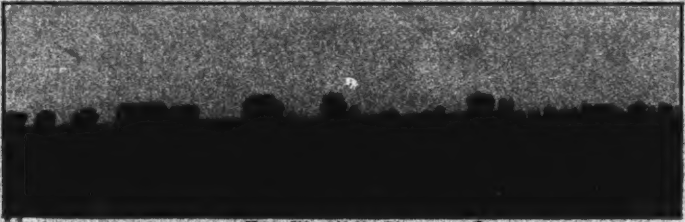
The real pioneer of the great Eastside was William Lindsey. He pitched the first camp in that particular section of this wilderness of 1902, broke ground for the first ranch and saw the first settlements grow up around him. He was a cigar and tobacco manufacturer sojourning in Arizona when he heard of the Imperial settlements. He induced an acquaintance to join him in a search for the Golden Fleece in this new country and together they outfitted themselves, bought sixteen head of mules, with wagons and supplies and started across the desert. Arrived they immediately located land, Mr. Lindsey taking his piece seven miles southwest of the present site of Holtville, although at that time his nearest point of supply was Imperial eighteen miles away. Between him and his grocer was the Alamo channel, even then a gorge of considerable proportions, and the only crossing was on the old Rose levee, northwest of the site of Holtville, a levee built for the purpose of serving the Mesquite lake country with water directly from the channel of the Alamo. At that time water for District No. 5 was taken out by means of a dam some two miles above the site of Holtville, this dam creating a lake more than two miles in length. It was from the upper end of this lake that Mr. Lindsey secured water for himself and his teams, driving back and forth to the ranch each day to prosecute the work of reclamation.

In the spring of 1904 the Colorado overflowed, raising the water in the Alamo and causing the dam of No. 5 Company to go out. The impounded water swept on down the channel in a wall several feet high and when it struck the Rose levee, that, too, went out, leaving the Eastside cut off from its supplies and leaving both the Mesquite Lake district and No. 5 without water. Newspaper reports were exceedingly sensational concerning this happening and Mr. Lindsey heard very shortly that reports had been published in Los Angeles papers to the effect that those few men in No. 7 would die of thirst on the desert or starve to death unless they either swam the raging stream or else walked across the desert to Yuma. As a matter of fact no one in No. 7 was frightened but Mr. Lindsey knew that his family, then living in Pomona, would be panic stricken so he determined to cross the stream in the Alamo and go to Imperial where he could telegraph news of his safety. With Frank and Bert Chaplin he finally forded the flood, although at times they were almost swept away in the deep and swift stream.

It was several weeks before conditions became settled but when they did Mr. Lindsey returned and for a year worked his ranch, putting it into fine condition, and sowing it all to alfalfa. Shortly he sold half of it, but bought an adjoining 160 and put that in. That 160 acres of the old place which he retained is now leased but he and his brother, Mr. Josef Lindsey, are operating a 70-head dairy on the newly acquired piece, one of the best ranches in the district.

A pioneer in the strictest sense of the word was D. H. Coe, who rode into the Valley on a bicycle in 1901. All the trials and hardships of the early day were his, but he conquered the desert, with hundreds of others, and today, the bicycle is discarded and Coe drives from his 200 acre ranch, six miles northwest of Holtville, in a high power automobile. There is no more enthusiastic booster of the country now than Coe, whom the Valley has helped make wealthy.

While living in Kansas several years ago Mr. Coe became acquainted with A. H. Heber. When Heber interested himself in the Imperial Valley he recommended it to Coe and the latter who had just come to Colton, California, and bought an orange grove on installments, mounted his bicycle and started up over the grade and down across the desert to the Imperial settlements, arriving there in midsummer with the thermometer at 117°. The bicycle proved a great help in getting about the country and on it Mr. Coe rode to the very site he selected for a ranch. He filed originally on 120 acres, but this was not enough and later he bought 80 adjoining, giving him a good sized ranch today. It is sowed to alfalfa and barley, although this year 50 acres were set aside for cotton. On the pasturage Coe carries 64 head of dairy cows, 30 head of young stock, and 200 hogs, beside making hay or raising grain for consumption on the place. Coe is essentially a business-like rancher, keeping books on every transaction, so that he is able to tell just what the place is doing month by month. His records show that he has cleared up, over and above all expenses, and allowing for his own labor, more than $3,700. It is of interest to note in passing that the orange grove he bought at Colton before coming to the Valley, afforded him revenue enough to put his ranch in shape here, and that now both places are paid for.



Here His Alfalfa Blossoms

"When I rode down into the Valley," says Mr. Coe, "ten days passed when I did not see a soul, except from a distance. On my arrival in Imperial the first man I met and spoke to was a Chinaman, cook at the hotel, I believe, but even he looked good to me. Those days were different from today."

You can count on the fingers of one hand the ranchers in the Valley who have literally "grown up" with the country: F. E. Van Horn is one of them. Mr. Van Horn owns a good ranch of 160 acres three miles east of El Centro. He made his start in the first school ever held in the Valley, the one referred to in a previous chapter, convened under a ramada on the bank of the main canal south of the present site of El Centro. Van Horn tells many interesting stories of those days in the pioneer stage when the young folks walked from one to eight miles a day to and from school, when books were hard to get and the methods of teaching were necessarily exceedingly primitive. He himself walked three miles each way, but he says he was seldom late to school and really enjoyed the experiences, young as he was. On one occasion a visitor laughingly remarked that theirs was the "first weed knowledge box" he had ever seen, but that it seemed to be turning out good material. On another occasion County Superintendent of Schools, Hugh Baldwin, of San Diego county drove across the mountains to visit the school (the law requiring that he visit every district in the county at least twice each year) and in a little talk to the pupils he encouraged them in their crude school by telling them of their good fortune in being able thus to look out across the desert to the mountains without an obstacle to mar the view. Young Van Horn leaned strongly toward geography and natural history and to him this suggestion was very timely. On occasions he says the rain drove the children and their teacher into a small tent erected near-by, but this was only at rare intervals.

Van Horn's training in such an atmosphere had its effect. He grew to love the country and to understand it. When he left school he went to work on his ranch and now has there 60 milk cows on fine alfalfa pastures, a large vineyard, abundant shade trees and a comfortable farm house. Coming as he did from a semi-arid country (Arizona) and receiving the training he did he was well fitted to make a success. The Van Horn's were one of the first families in the Valley, arriving here in 1900 and remaining here practically every day since.

L. E. Srack, a true pioneer, who arrived in the Valley from Riverside in 1901, was one of the first men to be impressed with the value of cotton as a staple industry in the district. In his early days here he chanced to be on a ranch adjoining one on which J. C. Nichols, an experimental farmer, was raising a small patch of cotton. When Nichols' experiments were abandoned the cotton kept on growing and Srack saw it, neglected and almost forgotten, grow to maturity year after year. Mr. Srack became a cotton enthusiast in time and when the industry became a matter of public interest he was among those who advocated extensive planting.

After the surprising success of the first year a plan for installing plants for caring for the by-products, oil and cotton-seed meal, was broached by him and he is the father of an organization perfected in February, 1910, to build mills and to care for these by-products. This company, made up of the growers themselves,will build the mill for oil and meal and in addition will operate the several gins in the Valley which are to be built in the cotton producing communities. All the profits will thus remain in the Valley.

Mr. Srack's first home in the Valley was in a tent on a new ditch 2½ miles south of Imperial. For a few years he engaged in grading and land leveling, but later secured a piece of land, 200 acres, of which 140 is now in alfalfa, with a dairy string of 90 cows on it. At present this property is leased as Mr. Srack is now secretary of the Imperial Valley Oil & Cotton Company, and has no time to farm himself.

"Out of the night that covers me
Deep as the pit, from pole to pole,
I thank whatever gods there be
For my unconquerable soul."

There is a group of men in No. 6 water district who could, without egotism, breathe this prayer every day of their lives. In a previous chapter the flooded condition of No. 6 for weeks, in 1906, has been described, but it was not possible at that place to mention the exceptions to the rule of inundation, for there were a few men who owned "unconquerable souls" and fought the water back victoriously.

In the forefront of this band was B. F. McDonald. McDonald had 160 acres in a high state of cultivation four miles west of Calexico when news came that the river was in and that the whole of No. 6 was certain to be flooded. Most men would have moved, in fact most of his neighbors did. But McDonald said to his closest neighbors, "We have put that water where we wanted it on the land; we can surely keep if off when we don't want it. Let's try."

So they fell to and built a strong levee around six ranches, aggregating 1,800 acres, in the very heart of No. 6. Scrapers and wheelbarrows were used to add to the levees and, as Mr. McDonald says: "The war cry in those days was, 'Fill 'em up and roll the wheels'!" Night patrols were necessary to guard against the breaks and constant vigilance was the price of their salvation both night and day. But in the end they won; the waters receded and their ranches and stock were saved.

Hard as was this strain, however, it was worth the effort. The McDonald ranch is highly cultivated and well stocked. Mr. McDonald came to the Valley in December, 1903, and took up 160 acres in No. 6 immediately. Although for the two years when the river was in very little headway was made on the ranch he has managed to put money away for the improvement of another ranch of 320 acres which he later acquired in No. 12. On the latter ranch McDonald has spent more than $14,000, all of which he has taken from the No. 6 place.

Being originally a Louisiana cotton man the growth of the new industry finds him an enthusiatic convert to its merits and he has planted 160 acres of cotton this year.

Fred Fuller's part in the history of the first decade in the Imperial Valley has been an important one—too important to omit. He was one of the real pioneer farmers, driving over with his brother from the neighborhood of El Monte, in 1900. Two years later he and the brother Arthur, came a second time with all their belongongs, to stay. For five years they had all the ups and downs of the average farmer, although their hard work and good management brought them rather more success than was vouchsafed to some. The story of those years can be found in more detail in the pages devoted to the history of Arthur Fuller, in another place in this book.

In 1907 Fred was elected county assessor of the new county, a position which brought him in touch with almost every resident of the district and makes him one of the best known men in it. But his real claim to undying fame lies in the fact that he is one of the first men who ever brought an automobile into the Valley. He is the pioneer agent selling the machines and much of the phenomenal growth of the business of trading in automobiles in the Valley is due to his energy in the first few months.

The precarious condition of the melon market has deterred many from raising cantaloupes for the last two years of the decade, but Fuller appears to have hit on the psychological moment when, in 1910, he planted 100 acres. The pictures shown are of scenes in his great field just west of Heber where, in the middle of June, the Japs were picking and packing 1,000 crates of melons a day.

Fuller Plunged in Cantaloupes

CHAPTER XIII

THE SPIRIT OF THE VALLEY

Reference has been made throughout this story to the Spirit of the Imperial Valley: that intangible quality which sets the community apart and gives it individuality and entity. It is a hard thing to define, to put into words at all, in fact; but it seems possible, without any purpose of being either flattering or narrow, to give it a meaning in this volume best by taking one man as a concrete embodiment of this Spirit. There are several such men named in this book, many young men of sterling character, strong purpose and notable ability, who might serve well, but perhaps no one fills the bill better than Steve Lyons.

Coming from a hard working family of Irish folk, and reared on a ranch in Salinas, Lyons had the advantages also of city school life and social intercourse with cultured and educated people such as many farmer boys never meet. In a family of seven boys, working together with a common purpose from the time they were quite young, the spirit of co-operation and communism was acquired early, and the dependence of each on the other illustrated graphically. Finally he brought to the life in the new country some capital and a good business judgment, invaluable assets in the struggle with an undeveloped frontier.

In 1904 only scattering development had been achieved in the Valley. The No. 6 territory, west of Calexico, was barely scratched although the work of extending the ditch system throughout the entire Westside was progressing. Lyons saw at once that land was to be king and he filed on a half-section in No. 6, leaving to the future plans for cultivation. In the meantime demand for skilled team work was so great as to make it a profitable field and Lyons became a grading contractor, with his brothers to aid. Between them they built more than fifty miles of the main ditches and laterals of the California Development Company, mainly in the No. 6 district.

The leveling of land on the desert is a fine art, nothing less. Steve Lyons studied the game and mastered it: he and his brothers put in more than 8,000 acres for others with their crews and those ranches are today among the prettiest in the entire district. It was this faculty and this willingness for doing things well the first time that made contracts easy for them to get. In a few months Steve was ready to start work on his own place where he had, at odd times, done the initial bordering and leveling. By the fall of 1907 the Lyons brothers, with their own outfits were baling more hay and threshing more grain than any one combination in the district. They did everything together and on a large scale. They took some long chances and when the river was in and most people were proceeding cautiously they were going ahead with high courage and unshaken nerve.

"Let But a Little Cot Be Mine"

With his nearest brother, E. J., Steve recently bought 565 acres in Mexico, three miles west of Calexico, and this ground will be used either for a model stock farm or a cotton plantation, depending on the results of 1910 in the cotton business. That is what Steve said about the piece and there you have him again: he is an opportunist, to use a political term. He doesn't guess at things nor experiment at them. They never catch him short, either in crops or work or time to play a game of baseball or arrange a dance. Never for a minute a piker, he is not a plunger. When it comes to ranching he has a happy faculty of hedging his bet.

All this is to give one an idea of the man. The application of the sketch is this: these characteristics go to make up the spirit of aggressive, yet conservative and sensible business agriculture. If there is a movement to organize some league of farmers for more effectual marketing Lyons is there; but he is quite as prominent if the movement is to organize a baseball club. He is old enough to understand business and young enough to understand a good time, so that he is not continually off balance either with the commercial heartache or the convivial headache. He has unlimited faith in the Valley and a generous confidence in himself, so that his view of the future is not circumscribed by mental edifices of worry. The horizon of the Valley has imprinted itself on his brain and his own horizon fits itself to the other picture; this leads naturally to a good appetite and the sound night's sleep.

This is the spirit of the Imperial Valley. There is ability coupled with willingness, abounding health, mental, moral and physical, faith in the district leading inevitably to faith in one's self, and a cheerful optimism that makes life worth something. There is a sane and boyish enthusiasm, expending surplus energy in hard labor, baseball, clean living, and the shirt-waist dance. Whether he knows it or not, the fact remains that Steve Lyons is a living example of the abstract Spirit of the Imperial Valley.

There are other notable examples of this Spirit for whose stories we have found space. One who claims our attention is Phil W. Brooks.

It is doubtful that any man has done more toward the social organization of the Valley than Brooks, whose ranch, half way between El Centro and Holtville, has been the scene of many happy gatherings and whose hospitality is known from Yuma to Cuayamaca. He came to the Valley in 1903 fresh from a New England agricultural school, that at Amherst College, with a small amount of capital and a large amount of the en-

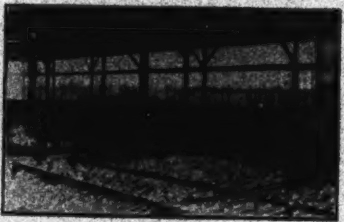
Phil Brooks' Home Breathes Hospitality

thusiasm and exuberance of youth and health. His first ranch was northeast of Heber. It developed rapidly and in less than two years he sold it and moved on to conquer another piece of desert. His second place was a school section six miles east of El Centro and this ranch, consisting this year of 400 acres of alfalfa, 100 acres of cantaloupes and 160 of barley and corn land, is his home now.

He Has Succeeded

That such a busy rancher could find time for promoting social development in this new community seems impossible, yet too much credit cannot be given him for his work in this line. He keeps open house and hundreds of lonesome and some times homesick young fellows have renewed their courage there. He enters into any movement for social organization. He belongs to most of the fraternal orders of the Valley as a charter member, not because he is a stereotyped "joiner" but because these institutions go to make up a vital part of community organization. He plays baseball on the Holtville home team, not because he has nothing else to do, but because the baseball league has done an immense amount of good in promoting social intercourse between the several towns of the Valley. In short he is a powerful factor for good in the community through his influence in helping to break the monotony of frontier life with an occasional smile.

Guy C. Bear (affectionately known to two-thirds of his acquaintances as "Teddy Bear") is another of that coterie of young men of city breeding and some backing who may be depended upon to raise standards of living and improve general conditions more than any other one agency in the Valley, is beginning the improvement of 570 acres east of Imperial with the aim of making them ultimately model farms. One piece comprising 240 acres, is six miles, the other a half section, two miles east, the former



An Orange Orchard Comes Next

piece being the one on which Bear makes his home. The second piece is only partly cultivated and a large amount of work is to be done on it this fall.

Bear comes of the right stock to make a model ranch wherever he may be. His father, Clinton Bear, is a retired stockman of Muscatine, Iowa, where he owned some of the finest horses and hogs the state ever produced. Starting at the age of ten with a brother, slightly older, Mr. Bear, the father, has been in the stock business for almost half a century. His first stock consisted of one runt pig, he and his brother having been given one each by a relative. The brother, being older and probably stronger, took the best pig of the two, leaving Clinton with a rather sorry specimen. However, the younger partner in the concern was a skillful manager and brought his pig to maturity, whereas the older brother's property turned ungrateful and died. From such small beginnings do great things grow!

He Has Broken the Ranch to Barley

Guy Bear, operating a 680 acre farm in Illinois and 1350 acres in Kansas, heard so much of the Imperial Valley that in 1908 he came west to see the country for himself. Save to interest his father and pack another suit case he never went back. No person in the district probably ever left so much to come into this new country, and Bear's testimonial to the future of the Valley is worth a good deal. "I like the life here, the people, the air of independence that characterizes the country, but particularly I like the possibilities for building a ranch from nothing to perfection." That is the reason he gives for his move.

More than $10,000 have already been spent in improving the 240 acres six miles east of Imperial, and more is coming. It is Bear's plan to build there a model stock farm on a small scale, expanding as he is justified by results. For the first two years he lived in a temporary Valley house, half canvas and screening, but in the fall of 1910 there will be built a $4,000 home on this place. The half section nearer Imperial is ideal for fruit raising but it will be put into alfalfa for the first three years, Bear's idea being to let the present extensive experiments

Guy Bear is Building up a Model Ranch

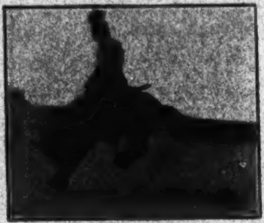
in the Valley show him just what is the best thing to do. His leanings are so strong toward stock, however, it is probable that is what he will handle to the exclusion of everything else.

Bear has proven a great acquisition to the social world of the Valley. His training and habit of mind give him a tendency toward taking life as it comes, and his gospel includes a certain amount of good times, so that to the group of young men who are trying to develop a spirit of good fellowship and promote social intercourse he is an invaluable addition. His ranch has for two years been an open house to his friends and in the fall of 1910, returning with his high power motor car he will be able to put its cheer and hospitality within a few minutes travel of Imperial.

Dave H. Williams is the father of the Christmas Fiesta idea that has made Holtville famous. He is the man who organized, financed and managed the Imperial Valley Wild West Shows that drove dull care away for so many thousands in the winter of 1909. He is one of the staunchest supporters of the Valley baseball league. He is the one man who never fails to respond when a call is issued for assistance of any sort to promote the best interests of the district or to give it publicity. Such a man ought to be a financier or a retired capitalist but Dave is just a plain rancher, who takes time to enjoy life and make others join him.

Dave is Never So Happy as When He is Making Others Smile

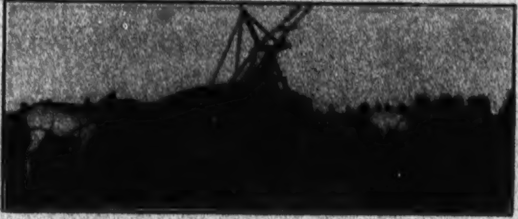
Mr. Williams began ranching in Canada, raising several crops of wheat in Chatham, Ontario, as far north as wheat will grow, then moving to Washington and ranching for nine years out of Olympia. In 1907 he heard of the Imperial Valley so frequently that in the spring he made a trip to the new country and bought a ranch. This he developed, having now 560 acres of alfalfa on the Buena Vista ranch, five miles southeast of Holtville on the Highland boulevard, the finest nine mile stretch of road in the district. This year there were on the ranch 27 stacks of hay, aggregating 900 tons, and making a fine showing for a new ranch. On one field Mr. Williams' farmer found one stalk of alfalfa measuring 7 feet, 8½ inches from crown to blossoms.



While others struggle to make money Mr. Williams' principal occupation is living. He enjoys outdoor sports and believes in them. When there is "nothing doing" Dave starts something. When people talk of the attractions of the Eastside they name Dave Williams as an asset and they are not far wrong for he has added more than any one man to the joy of living on that side of the Alamo river.

The stories of four of the presidents

of the several mutual water companies are to be given space in this book: H. J. Messinger of No. 11, W. P. Mansfield of No. 4, Dr. E. E. Patten of No. 12, and F. S. Webster of No. 1. H. J. Messinger is essentially a pioneer. For more than a quarter of a century he has been engaged in frontier work, sometimes as Indian trader, teacher or reservation superintendent, again in territorial legislatures or in public service assisting in the formation of government, again breaking ground or reclaiming the desert. It was natural that news of the opening of the Imperial settlements, reaching him when in Northern Arizona, trading with Indians, should draw him like a magnet. Without questioning what sort of country he would find he gathered a carload of work stock and came, arriving in 1903 when the Eastside was just beginning to come into its own. Thither he directed his train and there he went to work, leveling land, building ditches, and sowing seed. Operating on leased land to a large extent, he made a small fortune raising grain and this naturally led him into the grain commission and the seed business. In 1904 he settled finally in Holtville, opening up a livery and feed business but continuing to level land for others and to farm large areas of rented ground. He also owned outright quite an extensive acreage, buying and selling to good advantage.



This Farmer's Whole Family Aids When the Haying Season Comes

It was in 1908 that Mr. Messinger became a public figure in the Valley, for in that year he succeeded, almost unaided, in bringing to the front the district east of Holtville known as the "high line" country and later organized into the No. 11 Water Company. This district is all above the present ditch system of Water Companies 5 and 7, but is composed entirely of a high grade of soil and is not far distant from markets and the railroads. Messinger filed there, induced his friends to do the same and eventually had practically every foot of ground taken up. Then he began work looking to the organization of the land holders. By the fall of 1908 they had a definite basis from which to begin operations. Messinger was elected president and characteristically fell to scheming for a water system.

He addressed a request to the Reclamation Service for water from the Laguna dam to be carried across the desert between Laguna and the upper head of the No. 11 district. In reply the land holders were assured that, if they would construct their own canals, water could be furnished them at a fair rate per acre foot. They found bond buyers who would handle the bonds if the law would allow them to be issued on unpatented land. Messinger took the matter to Washington this summer and is endeavoring, as this book is written, to get authorization for bonds covering work on unpatented land. He has every assurance of success.

After his achievement in the organization of this 28,000 acre tract of undeveloped land Messinger's neighbors turned to him when seeking for a nominee to run for the state assembly from the district on the Democratic ticket. Having many friends in San Diego county and a host in Imperial Valley he was earnestly urged to make the race and consented. The issue is in doubt as we go to press but the ability and aggressiveness of Mr. Messinger can never be doubted and his success is enthusiastically prophesied by his many friends.

When William P. Mansfield came to the Imperial Valley in May, 1903, he came with some capital and a business experience that would have enabled him to hire all his ranch work done by others. But Mansfield had always believed in the adage that the most competent man to do his work is himself and although he had never seen raw land broken he put on a pair of brand new overalls and went out on the hummocks with a team.

There were plenty of hummocks and when Mr. Mansfield was through with the place, leaving only a few of the dunes that were most thickly covered with a mesquite growth, he had put a good deal of money into improvements. He estimates that his expenditures totaled $22,000, without figuring in his own time and work.

His net result, however, was a ranch that up to date has been as satisfactory a producer as any piece of the same acreage in the Valley. Some of the remarkable yields that have made the district famous have been harvested on this ranch and it has paid good dividends on the investment; in fact it has furnished a sinking fund of such size that Mansfield has taken from it his original investments in entirety and besides has a good margin of profit to figure for each year of the seven. And it is worthy of comment that Mr. Mansfield has seen fit to put all this money back, either into this place or into some other interest in the Valley.

All communities have their leaders, who are as indispensable to the life and growth of the neighborhood as are economic and physical advantages. One of the leaders in No. 4 water district has been Mr. Mansfield, who brings to the business in hand (whatever it may be) a good judgment, exceptional enthusiasm and executive ability. For several years he has served on the directorate of his water company, one which its stockholders look upon with pride. For two years Mr. Mansfield has been president of this board. In him also the First National Bank of Brawley finds an able and active director. Very much as a result of his arguments there was organized recently in Brawley the Creamery Association of that town, a company taking the products of Brawley dairies and handling it for the farmers. Mr. Mansfield is president.

It was not strange that when the Republicans of the county were casting about for a candidate for the position of Assemblyman for the district of which Imperial county is a part that they should fix unanimously on Mr. Mansfield and he has consented to stand for the nomination and carry on a characteristically vigorous campaign for election. It would be hard to find a more acceptable candidate for this nomination for Mr. Mansfield is not only a farmer, with a thorough knowledge of their needs, but he is also a business man. As an executive and the director of quasi-public corporations he has proven efficient, he also stands with his party chiefs and has for many years been an important factor in partisan government. Probably most important of all to the Valley he is an Imperial Valley booster and enthusiast and no less a person can properly serve the district in any public capacity.

At the head of Water Company No. 1 at the close of the decade is a man peculiarly fitted for responsibility in this connection. President F. S. Webster has been a pioneer all his life, although born in the quiet New England town of Woburn, Massachusetts. In fact it may have been because it was so quiet that Webster's father, Daniel, left it many years ago and moved to Kansas. In the course of time this country, too, became settled up and with the pioneering instinct strong in him F. S. Webster moved on again, going into Arizona when the Santa Fe was building there. A stay of a few years in the growing city of Los Angeles, after Arizona was exploited, was followed by the final move of Mr. Webster, who, with his wife and son, Roger, came to the Imperial Valley in 1903.

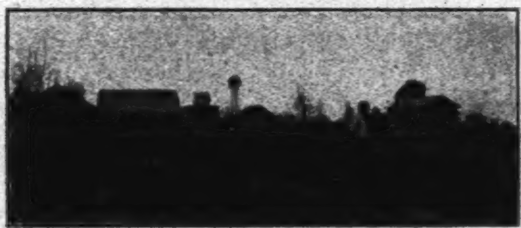
Mr. Webster took hold with a thorough appreciation of the conditions he must grapple with. He and his father filed on a half section of fine land west of El Centro, cornering with the piece that in late years was platted and opened as the townsite of Mobile. Until his duties in official capacities became too pressing Mr. Webster conducted this ranch, but when he was elected to the board of supervisors and later to the directorate and presidency of Water Company No. 1, he found it impossible to manage the ranch, so rented it. It is a remarkable commentary on Mr. Webster's business ability and integrity that his neighbors have, from his first appearance among them, entrusted so many important missions to him. He had the honor of being the first chairman of the board of supervisors of Imperial county, being also the first man from this end of the district to be elected to a place on the board of San Diego county before the division of the unit into two counties.

President Webster is the father of the suggestion that the land in the county of Imperial be organized into an irrigation district under the provisions of the so-called Bridgeford act, a state law, approved in 1897. The act provides that if a majority of the land holders in any given territory in the state petition their board of supervisors to hold an election on the question of forming an irrigation district of the territory, such petition is mandatory. In case such an election is carried by a two-thirds vote of all the land holders in the district the latter becomes an irrigation district, with a board of five directors, an assessor, treasurer and tax collector. This district becomes a body politic, empowered to own, purchase, and control irrigating systems, buy and sell water, issue and sell bonds, and tax all land within its bounds to raise revenues for paying interest on bonds, and for funds with which to extend or maintain its system. It is not improbable that Mr. Webster will convince the settlers of the merits of this proposition and if he thus solves the great water problem for them his name will indeed go down in history.

The "cattle king" of the Imperial Valley is George A. Long. Mr. Long modestly disclaims any right to a title of this sort, but he is the man who fattens more steers in the Valley annually than any other and his recent building of a sanitary meat packing house in Imperial clinches his title. The plans for this structure were furnished by the government.

Raising beef cattle can only be made profitable by a few, because it is necessary to carry on the business on a large scale to make it pay. The average rancher cannot afford to put fattening steers on his place at his own expense, if he wants to pay interest on the capital invested in the property, but one who can ship or drive in large herds and fatten them on leased land cheaply is on the road to success. George Long has this business systematized.

For several years he traveled for packing houses, but all the time he was watching for a location so that he could go into business for himself. In October, 1906, he concluded that the Valley was going to be an ideal district for the operations he planned to carry on and he bought 320 acres about midway between the towns of El Centro amd Imperial. The purchase price was $37.50 an acre: four years have not passed and Long has already refused, more than once, offers of $150. It is all in alfalfa, stock fenced and divided into pastures of suitable size. In addition to the home place he leases annually almost 1,000 acres, mostly adjoining his own ranch, and it is on these lands that he fattens the Arizona and mountain bred steers he brings in.



George Long's Home Smiles a Welcome

It is surprising what can be done fattening stock on alfalfa in this Valley when one knows as much about it as George Long does. They come in looking as though nothing short of the bloat would ever make them any bigger, but a very few weeks changes them entirely. But with proper precautions these feeders can be brought to a condition rivaling that of eastern corn-fed steers. One of the most interesting places in the Valley is George Long's, where can always be found from 1,000 to 3,000 head of steers in various stages of preparation for the abattoir.

George Long says "the Valley is the best place in the Southwest for fattening and conditioning stock," and his experience qualifies him to judge. In the four years he has been in the district he has handled approximately 40,000 hogs, carrying on his own place at one time as high as 2,750 head. In the same length of time the range cattle he has brought in, fattened and sold off will aggregate 15,000 head. Long's is one of the few places in the Valley where you can see Simon-pure cowboys at work, and some of the best cow ponies in the district are to be found in the bunch of 100 or more on the ranch.

Two years ago Long bought out R. H. Benton's meat market in Imperial and the investment was such a good one it led the cattle man to consider enlarging the business. As a result, after a year of planning and figuring, he announced in the spring of 1910 that he would build a packing house. Work was started immediately on his fine plant in Imperial, near the Southern Pacific tracks, and before this book is published Long will be slaughtering 30 head of cattle a day and as many sheep and hogs. A complete refrigerating plant in connection will afford unusual facilities for handling dressed poultry, filling a long felt want in this district. The dressed beef and other stock will be for home consumption, but thousands of pieces of dressed fowl will go out of the Valley from Long's plant annually. The packing house will be operated under the watchful eye of a United States government meat inspector.

Long has been a constructor and has done much for the Valley. He has been successful from every point of view. Coming to the district with something under $6,000 he admits today that he has cleared $70,000, without figuring the increase in value of his land and real estate.

In substantial and permanent improvements Long has spent more than $35,000 up to date, and the plans he is now carrying out call for much more than this amount. These sums stay in the Valley. The moral is pointed.

Big in ambition and spirit as well as body Mr. Long has won the confidence and esteem of his neighbors and is trusted by them with some of their responsibilities. He has been several times director of Water Company No. 1 and on many matters of vital importance to the district his word has been awaited by the other directors as final. Were it not that he has refused to enter politics it is more than whispered that he might be asked to take work of wider scope for the county. But he says that he has enough to do to take care of business for awhile.

There is a touch of romance in certain stories of Valley pioneers.

An absorbing desire to fight Indians tore Thomas O'Neill, a rancher living on his own place adjoining the townsite of Imperial, away from his quiet home in a peaceful settlement in Pennsylvania many years ago and sent him West. He came full of great ideas of the fun he would have but with a rather hazy notion of the hardships. He found plenty of both fighting and discomforts, not to mention dangers, for he followed the intrepid Custer through the campaign in the Yellowstone in 1873 and the roundup in the Black Hills in 1874 which started the blood feud leading to Custer's fatal engagement on the Big Horn in June, 1876. O'Neill, however, had left the service after the Black Hills campaign and had gone pioneering on his own account, finding his way at last to Phoenix, Arizona. Thence, in the winter of 1902, he came to the Imperial Valley, the last frontier of the nation.

Thomas O'Neill Was a Pioneer

This man O'Neill is one of those fortunate mortals who have found the happy medium which means contentment. A home, good friends, a fair day's labor, a pipe and a night's sleep that refreshes are luxuries to him. He leased 64 acres near the southwest corner of the town of Imperial when he first came to the Valley and there he established a little dairy. There he has ever since "pursued the even tenor of his way." For a long time his only companion in which he confided was Snip, his cow-pony, one that every cow-man in this part of the state knows and covets; but 40 years of bachelordom became monotonous and even Snip fell short.

So O'Neill went into partnership. His partner was formerly Mrs. Mahata Adams. O'Neill laughs now when he tells where some of his most successful wooing was done but his wife doesn't think the joke is a good one. Having been three years in the Navy when young and then for several years in the army O'Neill understands handling powder. When they were blasting in New River he did a large amount of the hauling and on the long rides from the railroad to the river with enough powder on each load to blow the entire population of Imperial Valley to bits the driver took his friend Mrs. Adams with him.

"I drove pretty carefully," says O'Neill, sententiously.

It is deplorable that there is not room in this volume for more of this romantic and anecdotal side of the history of the first ten years of the Imperial Valley, but it is crowded out largely by more prosaic matter. There is another little story of sentiment, however, which tells the experience of so many that it is given here.

Harry Van den Heuvel came to the Valley from Riverside in 1903, borrowing $25 to reach here and bringing along little besides the memory of several bills remaining to be paid. He began to work for others and in the course of a few weeks had enough money with which to buy a team. One of this team was a grey mare, old at the time he bought her, but still strong and willing. To this old mare Van den Heuvel became singularly attached. She was faithful, contented, and a hard worker; she pulled him through a number of tight places, and in the years that followed never failed him when called upon for help.

The young man had filed on a quarter section five miles west of El Centro and after working for others awhile he found himself able to put this ground in, which he did in 1904, sowing barley. The grain came up beautifully but when threshing time came there was no one to do the work. Van den Heuvel took a long chance, harnessed the old grey mare and drove to Imperial where he negotiated deals for several teams, threshing machine and men to work it. It was a piece of sheer nerve, but it stood. Owing several hundred dollars more than he cared to think about, the gritty young farmer went back to his ranch and threshed his barley. His next door neighbor had a big field and Harry threshed that. The neighbors came to him by the dozens and begged him to help them out. He made enough from that thresher to pay for it—and then some. And the old grey mare pulled a little more than her share of every wagon load of grain carried to the warehouse, just to show her interest.

Van den Heuvel had made something more than a start—he had established a line of credit that stood him in good stead later. For in 1905 the river came in and not only on his own ground but on 320 acres he had leased there was a dismal water shortage and crop failure. Van den Heuvel says that he owed every business house in Imperial, but he "kept a plugging" and in the end the river was turned back, the floods receded, the canal system was re-established and the young rancher began to catch up again. From that time forward things "came his way." He paid his bills, including a loan of $800 bearing interest at 15%, and he and the old grey mare stayed with the ranch and brought it through. There were days in those hard times when

The Old Mare Will Never Work Again

both man and horse did more than they should have done, but they managed to make it and now Van den Heuvel is not worrying about bills and the mare.

That old grey mare is out in a broad, level meadow of alfalfa, bordered by ditches and shaded by trees. For months she has not known the feel of a shoulder pad or the tug of a rein: her owner says she will never again stretch a pair of traces. An old grey mare, worn by years of hard work may not be a poetic figure, but there is something irresistibly heroic about this mare, who saw a man through the hard years and now grazes in a field of unbroken green, pensioned. One's faith in men is somewhat restored when one looks at this instance of the reward a faithful servant, even though a dumb one, is enjoying.

Harry Van den Heuvel has good cause to be grateful to the fates that sent him this way. His debts now paid and his future assured, he can let down a little and watch his property grow in value as the months pass. He now controls 600 acres, and the ranch is worth at a conservative figure $60,000 free and clear. But, in the words of the race track tout, it was "no cinch."

Romance has its place but there is something stirring in the more prosaic stories of the plain men who achieve quietly and without doing anything out of the ordinary. W. H. Poole is a typical American farmer. He is one of those energetic, powerful, untiring, hopeful men who go plodding and pushing ahead through every sort of luck and over every sort of obstacle and who get what they want. He is not widely known, because he attends too strictly to his own business to be much concerned in that of other people, and yet the "Poole place" is a landmark on the road from El Centro to Mobile because of its high state of cultivation, its fine trees and the big new home place. Poole came to the Valley in November, 1903, with practically no capital: now he is one of the most prosperous ranchers in his vicinity.

The story of how this came about is told in the first line of this sketch: Poole is a typical American farmer. He took the raw land and with his own hands or directly under his own supervision he put in his crops. The piece he secured comprises 220 acres, three and one-half miles west of the present site of El Centro, a town unthought of when Poole located. In those days he purchased his supplies in Imperial. He was fortunate and skillful; the combination always produces a "bumper" crop. What he made went back into the land and for six years he and his large family lived in the temporary shelter they built on arrival; too busy and too much interested in future possibilities to think of a new house.

Side by Side the Old Poole Home and the New

As the crop returns came in and more stock grew up Poole was handicapped by lack of acreage and finally he leased 320 acres nearby, putting surplus energy into that ground. In the summer of 1909, while the family were taking a vacation and Mr. Poole was away from home a fire occurred that cost him dear, consuming 60 tons of fine hay and a barn, and with them a young stallion of which Poole was very proud and which was very valuable. Characteristically the family accepted this piece of ill fortune resignedly and went on with their work. It was at about this time that plans were being discussed for a new house: the fire did not change the plans and in the spring of 1910 the little old house that had been home so long was left for a $2,000 residence as fine as any country house in the Valley. The picture shows the contrast.

While writing of the plain ranchers it is natural to recall the time when the comic paper pictures of a farmer with long whiskers and oats in his hair were not so far-fetched, but that time, particularly in the Imperial Valley, is now past. It takes a keen and sagacious business man, up-to-date in all his methods, to bring a ranch in this district to its highest grade of efficiency and make it pay dividends as it should. J. H. Blodgett, owner of a full section five miles northwest of Holtville, is a type of the new rancher; he would be considered fully as perfect a type of a business man. In fact it is by combining the two that he has brought his place to the high state of cultivation that marks it now.

Blodgett came from Nebraska in the fall of 1904. Starting with sufficient means to provide a proper foundation he built on permanent lines, putting in alfalfa and reserving plenty of ground for grain, hay and annuals. Like most of the heavier land holders Blodgett put on hogs and they proved a good investment for him. Later he added a dairy string and he is now a firm believer in the combination of dairy and hogs. In fact he says that he will not run a ranch without a dairy string henceforth. In spite of the fact that he has a large and expensive piece of property to care for, his string has for the past two years more than paid expenses of operating, leaving as clear profit all revenues from hogs, grain, hay and so on.

There is every prospect that Mr. Blodgett will win heavily this year of 1910, for he has 250 acres of cotton, and a very good stand at that. With cotton prices high he is promised a generous reward for his industry and faith.

But the mainstay of the rancher is his hog business. He believes in keeping books on his ranch and is enabled, as a result of his system; to tell just what his expenses and incomes are in this line. Surprising as it may seem he has figures to prove that, even with a large bunch of hogs, he receives $1 per month a head for pasturing his hogs, even when they are as low as 6½ cents a pound. At 10 cents, of course, his profit is enormous. At the latter figure he says that his barley brings him revenue at the rate of $4 a hundred, which is more profitable than selling it to others at 80 cents to feed their hogs.

Besides the increase in hogs they bought 500 additional later, giving them a good start in this line. With plenty of skimmed milk, alfalfa, corn and barley, he has been able to turn off some of the best looking and best paying stock that has ever been sold in the Valley.

Mr. Blodgett was the first man in the north end of No. 5 to drill for artesian water and he was rewarded, at 580 feet, with a strong pressure flow, which he has now piped into the house and to hydrants about the ranch.

If those anaemic youths, with immaculate shirt fronts and hair parted in the middle, who stand behind the counters or copy figures in the books of the large cities and bemoan the fact that the days of opportunity are gone, could read these pages they might find here some very striking lessons. The story of the efforts of James M. Potts, now 26 years old, would be full of meat for them.

Potts came to the Valley with nothing but his determination to make a home. He was 21 years old but had learned enough in the school of hard knocks to know that he would not win by sitting down under a cotton-wood and whittling sticks. In 1905 it was not so hard to find a piece of ground that was unoccupied and he found one 4½ miles north of Holtville. He borrowed $100 for a start and got a grip on things. After that you could not stop him. A man with that sort of stamina goes ahead and it is not necessary to chronicle the steps. Potts traded, worked for others, tilled his farm, put in a little brains with every crop he sowed and made good.

He is a good trader and a hard worker. Very early in the game he found there was a shortage of work stock so he went to the coast, picked up a carload of horses and mules cheap, brought them to the Valley and gave them a few weeks rest in his alfalfa patch. They renewed their youth and he sold out at a good profit. He has tried this plan several times, at the opportune minute, and has made a comfortable sum this way. The money has gone into the improvement of the ranch which now has 60 acres of alfalfa and 20 acres of cotton. There is a small dairy string on the place, hogs enough to keep the feed and skimmed milk cleaned up, and a few extra horses so that if a trade looms up on the horison Potts will be able to keep his end up.

And Such a Dairy!

Talk about the examples of Carnegie and Rockefeller; what are they compared with the example of James Potts, who has put himself out of reach of grubbing care by industry, patience, attention to business, and faith? It is well enough for callow city youths to sigh because the days of opportunity for budding genius are no more. If Potts had been of the sighing sort he would be working for $4 a week now.

More than passing attention should be given those men who have born the brunt of the pioneering in this Valley, but who might escape notice because of their modesty and the humble nature of their toil. And yet the men who have changed the face of nature in the district and made its wonderful achievements possible are those who, with mules and a scraper, have made ready for irrigation.

G. L. Dutcher, better known throughout the whole district as Lee, is a typical member of this class. Lee came to the Valley in January, 1905, when the largest amount of grading that was ever done in one year was beginning. Possessing capital aggregating $35 he went to work by the day "bucking" a Fresno, as he says; and at this work he stayed for several months. But he was too ambitious and too good a manager to be held down to a job. One by one he bought an outfit of teams and scrapers and in two years was doing a large contracting business, leveling some of the finest ranches in the Valley. Being a good trader and an expert horseman, Dutcher kept his stock coming and going and by this means accumulated a small savings account "on the side" so that, in 1908, he was able to buy out his brothers, M. V., and Claude, who owned a livery stable in Imperial. His dealings with his neighbors inspired them with a great deal of confidence in Mr. Dutcher and in 1910 he was elected a city trustee in Imperial.

Lee Dutcher's Crews Leveled Thousands of Acres

Lee understands grading from first to last and his work has always been in demand. Consequently he has not entirely given that branch of pioneering up. He has 12 to 20 head of stock at work on contracts of one sort and another all the time. The livery barn is modern and well equipped, with 25 head of good livery stock and outfits for 50, with tally-hoes, surreys, single rigs and accoutrements. Recently Dutcher purchased an automobile for his own use but there proved to be a demand for it for renting purposes and this has led him to arrange for a further excursion into this field in the fall.

Meantime Dutcher has not allowed all his opportunities to slip: he has a farm of 320 acres in No. 7, all under cultivation. Thanks to the Valley his $35 has grown, in round numbers, to a sum approximating $15,000.

And this brings us to another story that is best introduced by the following figures:

Trial balances, (annual) W. S. Moore, El Centro.

1903–Cash on hand $45; roll of blankets $5	$ 50
1904–One team, part interest in hay baler, cash $200	700
1905–Two teams, equity in 160 acres near El Centro	1,500
1907–Teams, more equity in land, implements, etc.	3,000
1908–Teams, hogs, land and other assets	5,000
1909–Teams, hogs, cattle, land, comfortable house, etc.	9,000
1910–Ranch	16,000

The above figures are not from Mr. Moore's books. They are our figures, compiled after hearing his story of seven years in the Imperial Valley. They are so nearly correct that they are sufficient. And they tell very eloquently of what this man has done since coming to this district.

Moore came from western Pennsylvania with the roll of blankets and $45 above referred to, in the fall of 1903. He did not sit down in front of a poolroom and wait for an easy job to hit him; he went out and hit the job. That sort of man is a good worker and is worth money to any employer, so that Moore commanded good pay and the confidence of the man he worked for. In a few weeks he made a payment down on a team of horses and with them he was able to make twice as much every day and in the spring of 1904 he bought an interest in a hay baler. His first job with the press was on the present site of El Centro, but he had other jobs all that summer and fall with his machine. By the summer of the next year he was in a position to meet the census enumerator and be set down as "rancher" instead of "laborer," for in July he made the first payment on 160 acres of land 3½ miles south of the present town of El Centro.

After that, although the work was harder and responsibilities greater the element of worry was removed, for the future was clear. The piece was put to barley amd alfalfa and in another year was ready for a few head of stock. By 1909 it was almost a ranch, there were 150 head of hogs growing into money rapidly, a dairy string of 27 good cows, plenty of feed, hay up for the winter and things moving. Moore lost a little in one year's experiment with cantaloupes but recouped on hogs

Cantaloupe Shipping is an Art

at $8.50 a hundred pounds and forgot the melons. Recently he sold 6 head of hogs for $117, which is even better than cantaloupes, especially at a net profit of nothing per crate.

Fifty goes into sixteen thousand 320 times.

Another of those remarkable personal stories of achievement that mark the history of the first decade in the Valley is that of I. J. Harris, who came here in 1904 with a sick wife and his bare hands. His story was different somewhat from that of many in that he did not take up government land, but bought. The Harris' came from Louisiana in search of relief for Mrs. Harris, who suffered from a bronchial affliction. They arrived in Imperial with nothing and Harris went to work by the day. He put in three ranches for others meantime buying his first land, a small piece just north of Imperial. By economy and industry he accumulated enough at last to buy an additional

80 acres and with the experience he had gained while working for others he was able to pick out as good a piece of ground as there is in the Valley, a sub-division 6 miles northeast of Imperial in the Mesquite Lake country.

Here he has alfalfa, barley, grapes and eucalyptus, in the latter of which he is a great believer. As it is, the six years of his residence has brought him a sturdy little girl, renewed health to his wife and has changed his assets from nothing to a ranch worth $12,000 in the Mesquite country and the small place near Imperial.

When President Babcock, of the University of Arizona, was a visitor to the Valley in May, 1910, he addressed a gathering of college men in Imperial at an informal luncheon, and called their attention to one particularly vital necessity of the district. He said in brief that the conclusion that our farm unit is going to be 15 or 20 acres eventually is unavoidable and his recommendation was that the people of the Valley begin building entirely with that idea in view. The resultant dense population, of course, will mean large central towns, heavy business of all sorts, but more important still, intensive farming methods.

There are a few men in the Valley who anticipated the president in this latter regard; one of them is S. C. Tompkins. Mr. Tompkins owns 40 acres four miles southeast of Holtville and on this he plans to make a fortune. To that end he is compelled, of course, to make every foot of ground count and every ounce of feed bring the maximum returns, but this he is rapidly finding himself able to do. One of his first experiments was with balanced rations. He runs a small dairy, milking 30 cows, and when they pastured on alfalfa alone he got the same results as his neighbors. But he experimented with mixed feed, hay, and balanced rations and he reports now that his findings have been remarkably encouraging. Convinced of his ground he went to the expense of erecting a small alfalfa mill on the place, building large enough to do his own work and that of his neighbors also. Tracks run from the mill to the feed stanchions, so that a minimum of labor

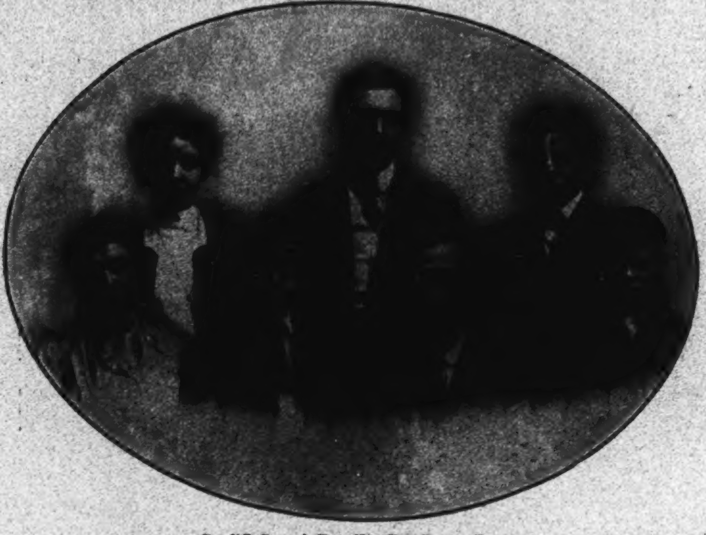
Found Dairying Pays

is required in caring for the herd. Ranchers who do not believe a man can make money with less than a half section of land should visit Mr. Tompkins' place and see what he is doing with an eighth of that. He asserts that he can feed a dairy cow to the acre the year through and leave besides room enough on his ground to do considerable truck gardening, raise fruit and poultry and make, in fact, a model ranch, capable of bringing in a handsome yearly revenue always.

Tompkins is a business man, as his efforts at ranching demonstrate clearly. He came from Los Angeles two years ago, after a long experience in commercial lines, and from the first has made a success of running his place on business lines, building always for the future.

"He saved others; himself he could not save."

It might not be inappropriate to put some such epitaph on the tombstone of J. M. Cardiff, a man whose cheery front, hopeful outlook and encouraging word saved many of his neighbors in the Mesquite Lake country, 4 miles northeast of Imperial, from despair and surrender in the hard years of the early history of the region, but who, when he had built up a prosperous ranch from bare desert in two years, was himself the victim



Cardiff Sowed For His Family to Reap

of a fatal accident. Mr. Cardiff was killed by a horse in 1907, but not until he had prepared the way for his family to sustain themselves and to be well on the way toward a competence. His oldest son, J. L. Cardiff, became manager and he, his mother and brothers are holding together a handsome ranch of 320 acres.

The Cardiff's came from San Bernardino when everything in the Valley looked discouraging. Having lived for several years in a country wholly dependent on irrigation they knew the value of the headworks of the California Development Company to the Valley and they foresaw the ultimate ruin of the district if it proved impossible to stay the course of the vagrant Colorado. But Mr. Cardiff decided that it was safe to throw in his lot with the hundreds already here and with the rich and powerful corporations whose property would be ruined if the break in the river was not controlled. Going on this principle he invested every cent he had in the Valley and tried to encourage others to do the same. He never lost faith or hope and many a man testifies today that the cheery optimism of this rancher enabled him to get a new grip on things and induced him to stay with what looked for awhile to be a forlorn hope. Mrs. Cardiff's place in this story is, of course, a large one.

There are other women, too, who play important roles, one of them being a great lover of flowers. It is a well known fact that there are no flowers in the world so rich in hue and so perfect in coloring as those raised on the deserts of Southern California

Four Generations at the Scott Home

and it is a wonder that there are not more here. One of the few places where desert grown flowers may be seen in profusion is the ranch home of D. B. Scott, north of Imperial less than five miles. Mrs. Scott is the mistress of the home in every sense of the word and she has carried her ministrations outside the walls and into a garden of rare beauty. She has had unusual success with all the flowers commonly grown in the Valley, but not content with these, she has gone on and reared to maturity rare roses, chrysanthemums, oleanders, hyacinths, tulips, gladioli, calla lilies and California poppies. In every case she has been able to bring the tenderest buds to perfection and her knowledge of the tricks of the trade would be purchased gladly by many a housewife who misses the flower garden of some other-land home.

The Scott place throughout is of interest. Scott came to the Valley from Michigan in 1903 and took a piece of raw land. One of the first things done was to plant trees, one experiment being with four date palm seeds. The palms came through very speedily and today, at six years old, are marked for their size, symmetry and beauty.

The Scott's believe thoroughly in the hog industry. Mr. Scott started with two shoats, but his aim from the first was to prepare for an extensive excursion into that branch of stock raising. On 60 acres of alfalfa he is able to carry some 300 hogs, today, devoting the remainder of his place to barley for fattening. By building on business-like lines he has made a good success and the future promises well.

The breeding and raising of hogs has been repeatedly referred to in this volume as probably the most staple industry of the Valley. Other lines of agriculture and general ranching have come and gone, but, taken year by year, it may safely be said that there have been no failures in hogs. There are a very large number of these animals in the district at the close of the decade but they are not of good breeding. This may be accounted for by two reasons: first, that prices have been so good, almost without exception, for pork that there has been a great haste made to breed, raise and fatten, at whatever cost of careful breeding; second, that comparatively few men have made any effort to furnish hog men with good breeding stock.

This is one of the things that has led several breeders recently to turning their attention more and more to registered hogs. One of the men planning to raise blue bloods exclusively from this time on is Arthur McCollum, a rancher 2½ miles north and a quarter of a mile west of Imperial. McCollum was raised on a farm, although for twenty years, and until his health broke down, he was a postal clerk, residing in San Jose, California. He came here two years ago with little capital and poor health but he has improved in both regards rapidly. He tells an interesting story of his condition financially when he arrived. McCollum preceded his wife by three weeks with sufficient money to tie up a small piece of ranch land. When Mrs. McCollum reached the Valley she had to hire a liveryman to drive her to the ranch and, after paying the driver, she turned to her husband with the capital on which they were to start in. It amounted to $2.15.

Peace and Plenty are McCollum's

On the forty acres they have since succeeded in paying for and stocking they will raise Ohio Improved Chesters, a white hog, and Poland Chinas; and according to present plans there will be nought but registered stock on the ranch. The best of care, clean water, plenty of shade, and thoroughbred stock will make a model breeding farm. It will be McCollum's aim to sell everything he grows to breeders and not to sell the hog buyers anything. Building on these lines it is certain he will be able to do a great deal toward improving conditions in swine breeding in the Valley.

J. R. Sturgis is another who is laboring to improve standards. His plan is an ambitious one, but it promises to be of inestimable value to the district, as he has both the means and the ability to give the matter of good

The Sturgis Home Suggests Comfort

breeding a thorough test. On the 160 acres which he owns 7½ miles southeast of Holtville he has every opportunity to give the problem close study and satisfactory test. The ranch is in alfalfa, barley and wheat, with plenty of room for corn and with ample fencing, pens, etc. Sturgis has only thoroughbred stock, Poland China and Berkshire, and the young stock coming on make a wonderful showing. It is the owner's contention that thoroughbreds require one-third less for feed and care, and fatten one-third quicker than ordinary stock; this contention he is now in a position to prove satisfactorily.

The plan is to breed for the market, although there will always be breeding stock for sale. One carload every two months is about the rate at which the rancher believes he can turn the stock off, after the first few months of experimentation, and he is amply equipped to do this if his figures work out correctly. It is a well known fact that, everything else being equal, hog buyers prefer well-bred hogs, both because the quality of the meat is better and because the hogs are smoother, stronger, and better nourished, and Sturgis expects to top the market with every hog sold.

Mr. Sturgis came from Ventura county in 1908, being followed later by his father and brother, both of whom have since become interested with him and have also purchased land for themselves.

J. M. Prim is the largest breeder in the Valley. He came in March, 1905. Born and raised on an Illinois farm and for ten years working with and owning hogs Prim naturally knew

Prim Built Model Pens and Feeders

something of the business. A friend who came west for his health wrote enthusiastically of the desert and urged Prim to come out. After some correspondence the hog raiser came, he and his friend taking a lease on the C. C. Manning ranch of 320 acres four miles northwest of Holtville in the rich No. 5 district. Prim's partner was an invalid and after a few months sold out to Jim, who plunged into the game with enthusiasm.

There were times in the next two years when it looked as though he had "gone it too strong." The river came in about the time Jim did and the foundations on which the reclaimed desert stood were tottering for several months. But Prim held on and after the closure his hogs were worth a good deal. He recouped in 1907 heavily and put most of it back into the lease or into other property. In 1908 hogs went down, down, down, and barley up. Prim had miscalculated his distance, fed barley into the hogs up to the very breaking of the market and in 1908 it is not improbable that he lost from $10,000 to $12,000.

But he did not quit. He bought cheap hogs, when the fat stock market was floundering around four cents and feeders could be bought from three and three and a half. His neighbors felt sorry for him but not so sorry but that they gladly unloaded on him, then sat back to watch the crash. They are still watching. By May, 1910, the hog buyers were fighting each other to pay $10.35 a hundred. Jim Prim sold three carloads about that time for $5,500!

With 3,200 hogs Prim needed more land so he bought 80 acres of the Powers ranch and raised barley and Filipino wheat. The latter was expected to yield ten bushels to the acre: Prim got 30 sacks. This he feeds in automatic feeders: no waste, no dirt, no sore-mouthed stock. In passing let us note that self-feeder cost all the profits from a carload of hogs. No-

A Reservoir Covering an Acre

body but Plunger Prim would have built that and a row of model, high-priced farrowing pens when hogs were at five cents. Yet those pens and the feeder paid five for one in tow years.

Prim has a system! He does everything as well as he can. The scrubs are weeded out; thoroughbreds take their places. The work stock he uses are big well-bred mules. He believes in clear water and plenty of it, so he built a reservoir covering an acre of ground from which he could irrigate his whole place once in case of necessity. He always has a little feed to spare, consequently he never has any spare-looking feeders. The pictures show something of what he has done in seven years.

No one in the Valley, particularly if he raised hogs, could well help knowing something of the success in that line achieved by the Fuller brothers, of which Arthur Fuller, of Imperial was senior partner. When the river was in and all stock was being sold at any price it would bring the Fullers bought hogs. They spent one-third of their time fighting the water, which finally, in the spring of 1906 stood eight feet above their ranch against a level formed by the north bank of the Main canal. The remaining two-thirds they divided evenly between caring for their stock and buying more. Some people thought they were crazy and predicted ruin for the brothers. But Arthur Fuller had it figured that the water was going to be corralled and sent back where it belonged. He had infinite faith in the Valley, has today, and when hogs were offered cheaply enough he bought them. In the spring following the flood hogs began to soar. Everyone wanted them: Fullers had them. It is probable the two brothers cleared up between $12,000 and $20,000 that year.

They came here in 1900 first and filed on a half-section of land each. That was a very early day indeed, and as they had land in the neighborhood of El Monte, east of Los Angeles, they went back there and stayed until March, 1902, when, with six head of horses, their furniture, implements and supplies, they drove across the mountains and entered the Promised Land. It was hard sledding in those days. Mr. Fuller's first crop was barley, half of which he lost because of the rank growth of weeds in it. The balance he threshed out by driving horses over it and then winnowing it in a fanning mill. He had about the best seed barley in the fall of 1903 that there was to be had in the district and he sold it at a good profit. That year he started to sow alfalfa and now his half section is all a pasture.

It was in the spring of 1905 that Fuller started the hogs, beginning with four sows. Since then he and his brother have carried as high as 2000 head at a time, and have farmed not only their own ground but from 500 to 800 acres leased land besides. It was while leasing a large acreage near Brawley in order to avoid the necessity of buying feed for their hogs that Arthur Fuller overdid. It is as easy for some men to work too hard as it is for others not to work at all and Arthur Fuller is one of the former sort. His health broke down and today he is taking it easy and gradually regaining the strength that formerly enabled him to work 18 hours of the 24 day in and day out.

When Grapes are Ripe!

Not satisfied with being idle, however, Mr. Fuller is now attending to the business of securing more land in the district. Less than a year ago he and his brother bought two 160-acre pieces, one 2½ miles west of Imperial, the other three miles south of El Centro. Arthur Fuller's half-section west of Heber is worth $40,000 today and not really on the market at that.

Jim Prim, whose story has just been told, said one day: "A man has recently come into the Valley who can teach us more about hog breeding than anyone who has ever been here. His name is Bliss."

So we looked up this man Bliss. He is a member of the firm of Bliss & Colson, real estate brokers, and is reputed to be wealthy. But he wasn't in a mahogany chair clipping bond coupons. He was cultivating cotton, riding behind a big team of mares, with the sun coming straight down, and a truly Blissful smile was on

He Was Not Cutting Coupons But Plowing

his face. He said: "Well, I have studied hogs a good deal back east. I come from Illinois, was secretary of the Illinois State Swine Breeders Association one year and president one, and have raised considerable fine stock. We once owned an $8,000 Poland China boar. But that's no sign I know everything about hogs. I think this is a country with a great future for the swine industry but I wouldn't want to advance theories about them until I get acquainted with the new conditions here."

Mr. Bliss reached the Imperial Valley in the fall of 1909 with half a notion to buy 40 or 80 acres for experimentation. He ended by buying 640: one half section abutting on the north city limits of Holtville in No. 5; and another half section east of El Centro, with 160 acres inside and 160 outside the city limits of the county seat. The country was so much better than advertised that he stayed a few days—and is still staying. He was raised on a farm, but when a young fellow went to school teaching and followed that profession in capacity of teacher, superintendent and school trustee for many years. Now he is back at farming when he can afford to do it on a large scale.

Mr. Bliss' partner, Mr. Colson, is an expert real estate man and an indefatigable Valley booster. He is particularly interested in the movement for good roads for the farmers and the firm is lending a hand to promote every movement looking to that end. Fancy roads for automobilists at the expense of decent highways for the countryman are opposed, however. Mr. Colson is dealing with farmers and he knows their needs.

Colson came to the Valley from Redlands in February, 1908, and immediately became a "booster." Abandoning large opportunities elsewhere he settled in El Centro and took up the realty and investment business more for what the future offers than for what is assured for the present. Making first a thorough study of soil conditions, crops and the needs of the farmers Colson got into direct touch with the vital points in connection with the land business. Now he is looked upon as an authority on those points of relationship between the farming community and the investor or speculator that are most vital.

CHAPTER XIV

MAKERS OF EMPIRE

There are those in the cities and towns of the Valley whose part in the reclamation and organization of the Valley make them worthy of a place in this history. For example, the close of the decade the towns of the Imperial Valley are, broadly speaking, a sort of standing monument to the persistence, courage, and industry of one man, H. H. Peterson. That doesn't mean at all that the towns would not have been built had it not been for this one man. It simply means that he is the brick maker and contractor who furnished the materials and did a large part of the work of erection: without him it is very probable many of the buildings now standing of permanent and substantial character would instead have been wooden structures falling to pieces, or doomed to do so within a short time.

This man Peterson has made money in the Valley, probably a large amount of money, although he refuses to confess the sum. But for the first three years after his arrival in December, 1903, he had a hard time. In 1901 B. A. Harbour and George Carter owned a small "hand" yard east of Imperial where they turned out a small amount of brick. But it was difficult to get labor and although brick was in demand it was expensive to make. When Peterson came he did not look around very long before deciding that general contracting in brick work was about his size. He had come from Los Angeles where he had been foreman for Paul Haupt, a big contractor, and where he had worked on most of the large down-town buildings of his time, and he knew the business thoroughly. So he bought out Carter.

Harbour and Peterson burned a kiln of brick at Calexico and started the Calexico hotel. Work crowded in on them. But it was not so easy to make brick as it was to sell them. It was hard work, warm work, and particularly it was difficult to get labor. However Peterson and his partner opened another yard at Holtville (before there was a frame building in the town) and started on a slightly larger scale. This was not easy, especially since they had to haul all the water they used from the Alamo channel in barrels, and to lay off about every third day because they couldn't get men enough.

Peterson practically built the town of El Centro, in the meantime sending up buildings in Brawley, Holtville, Calexico and Imperial and in the end things began to turn and the money came rolling in. Mr. Peterson was ambitious to keep abreast of the demand and this meant double and triple work for him, but he stayed with it until he had the thing systematized. The result is that he, working almost without assistance, has been able to build 95% of the brick edifices of the Valley, not only making and burning the brick but taking the contracts for the buildings.

Probably the most important buildings he put up are the Hotel Oregon in El Centro and the new High School building in Imperial. His own building, at the corner of Eighth and Imperial avenue, Imperial, is one of the best office buildings in the Valley, and of course has more interest for Peterson than those he put up for other owners, now that it is completed. He has burned 10,000,000 brick since he has been in the district and estimates that the value of the buildings he has built for himself and others aggregate $750,000. In the season from the fall of 1909 to the middle of summer, 1910, he will have completed contracts aggregating $100,000 in Imperial alone, including the High School building, the Carnegie library, the Broadwell building and others. He has plans completed for the installation of a $10,000 plant No. 2 at Imperial, duplicating that now in operation at Holtville, and this second plant will be built within a few months of this writing.

Now Peterson Owns His Own Buildings

It may be considered affectation for a man of such achievement to complain of his troubles, but as a matter of fact Peterson is facing a pretty serious problem. In the first place skilled labor, even at the high wages he pays (from $2.50 to $9 a day) is hard to get and keep. In the second place it is a long way to the base of supplies for building materials, save brick. Mill work, glass work, paints, cornices, hardware, and all must come from Los Angeles or San Francisco. To add to these burdens there are long hauls of sand and gravel, troubles with power at the brick yard, the heat of the three summer months that makes quick building work impossible, and other features that do not enter into the calculations of a builder anywhere else. Peterson says that it is 40% harder to build in the Valley than outside, and he ought to know. His pay roll has from 45 to 50 men on it through nine months of the year.

Mr. Peterson owns two pieces of land in the Valley, one of 400 acres west of Imperial on the bank of New River, where he has immense sand and gravel deposits in addition to a big barley field and the other 160 acres in No. 12.

As we have observed, much credit has been given to the men who have reclaimed a desert and built an empire: there is not less glory for the men who have developed cities, building them up from clusters of tents to centers of industry and business rivalling those of districts that were old when the civil war was fought. The city of El Centro was composed of half a dozen buildings moved over from Imperial in the fall of 1906; today the improvements are worth two millions of dollars. J. L. Travers effected the change.

Contractor Travers, "The Pioneer Contractor," did not do it all, but he was the first man on the ground, his buildings were substantial, ornate, complete. When others built they kept one eye on the models, those of Travers. Here's the story.

When a Redlands syndicate bought the townsite of El Centro Travers was a member of the contracting firm of Fairchilds and Travers in that orange town. El Centro was a spot of desert ground at that time, nothing more, but it had the right sort of men behind its future and Travers decided on a move. He brought Charles Nelson, a trusted foreman, with him and the two dropped off the train in the midst of a waste in November, 1906, half a mile north of the present depot of El Centro. The town was made up then of the Franklin Hotel, moved from Imperial, a couple of small residences owned by Dr. Anderson, and also moved in, and a little real estate office on Main street. A ditch brought water from the canal west of the townsite to the hotel and that was all there was to start with.

The first contract Travers had was for the construction of the El Centro hotel, at that time considered a wild dream by the pioneers who were used only to shacks and tent houses. But when the ground was broken the promoters asked Travers if he could handle more than one building, and with characteristic promptness he responded: "Sure!" So they asked him to build the Holt Opera House. Considering that the town had not more than ten permanent residents in it at the time it is not strange that the idea of an opera house was greeted with consternation. Travers wasn't excited, however, for already the settlers were beginning to come in and the town of El Centro began to be more than a name. He started work on the opera house under difficulties for the hotel contract was a big one and materials and help were not easy to get.

Two barrels sunk in the ground beside the ditch were the basis of the water supply, one being filled first and then the other filled from the first so that the water was settled. Water for use in construction was pumped from the ditch by use of a force pump. A good deal depended on that small ditch.

Long before those two first buildings were completed Travers had more work than he could take. The whole block on the south side of Main street was to be improved and Travers took the contracts. From that time on he was not only the pioneer contractor but he was the biggest contractor in El Centro and one of the two largest on the deserts of the Southwest. Residences all over the townsite came under his supervision: in fact he contracted almost $1,000,000 worth of substantial buildings of one sort and another during the four years to the close of the decade. He was the builder of the Oregon hotel, the finest hostelry on any desert in America, of the El Centro hotel block, the El Centro ice plant, and (when the first building burned down) the present plant, the Blackington building, and practically all the business buildings and most of the fine residences of El Centro. Finally a building that has been referred to by architects and experts who have seen it as the most appropriate and handsome structure in the Valley, has just been completed under Travers' hands, the El Centro National Bank building, a picture of which is found in this volume. In all the pictures of El Centro his work will be seen prominently.

With a force of 70 men he is working as this book is written on the five ice and cold storage depots that are being built respectively in Brawley, Heber, Calexico, Imperial and Holtville, and in a large one for El Centro; also a $3,500 residence for L. H. Scott; with several lesser contracts; and most important, 1,000 feet of arcades for the Holt buildings of Main street. These arcades will add more than any one thing to the appearance of El Centro. Travers is building them with concrete pillars, galvanized iron roofs and steel ceilings, and will light them with electric lights both in the arches and in clusters in the roof. The effect will be to make Main street a brilliantly illuminated thoroughfare rivaling those of many larger cities in older districts.

Real pioneering was done by Travers when the water was in and things looked very uncertain. In the midst of a busy day late in 1906 a call for help was sent up from the levee on the Main canal south of El Centro where an earthen bank was holding back from two to eight feet of water, protecting the whole country of which El Centro was the center. Travers called off his men, left all the buildings as they were and for hours this great crew stood shoulder to shoulder with the farmers who were gathered there and built up the levees inch by inch so that the water could not overflow thousands of acres and destroy tens of thousands worth of property. They kept the water back and when it began to recede they returned with Travers and went back to their task as though nothing had happened. But it *had* happened nevertheless. Travers and his great crew had added the last few shovels full that saved the day.

There is a lot of credit due to the men who reclaimed the desert and made it fruitful. There is also a great deal due the men who, like Travers, made the cities places to be proud of and about which to build up a great civilization.

Those other men on whom have fallen the care of these cities are also important characters. No wiser choice could be made of a man to guide the affairs of a young municipality in a frontier community than a physician. The town of Imperial, struggling toward recognition as a center of homes and trade, was exceedingly fortunate, in 1908, in the election of Dr. Elmer E. Patten to a place on the board of trustees, where he was shortly made chairman. Dr. Patten was the first health officer and county physician in Imperial county, receiving that appointment shortly after his arrival in the Valley. So ably were the affairs of his offices managed that Imperial saw her opportunity and profited by it. Largely through Dr. Patten's efforts a thoroughly dependable water supply was secured in 1909, with fire protection in connection. Later he and his associates called the people to consider the crying need of a sewerage system and bonds were voted for this purpose, the sewers being installed in the summer of 1910. A new city hall was built during his regime, as was a Carnegie library building and the $55,000 high school building. In fact Imperial graduated from the village class and it was Dr. Patten's fortune to have a hand in the exercises.

Enthusiastic for his community Dr. Patten takes time from a large practice to enter into other affairs of importance in addition to his civic duties. He is president of the No. 12 Mutual Water Company, which is building up a model system in the wedge of the Valley situated west of New River and between No. 6 and No. 8 companies. Here he owns a half section of land which will be made a thriving ranch in a few years.

A chemist and pharmacist Dr. Patten took his degree as doctor of medicine only four years since, graduating at the University of Southern California College of Medicine. His welcome to the Valley was spontaneous and generous and since that time he has gained a high place in the profession. He was one of the first to take cognizance of the fact that no locality in the world surpasses the reclaimed desert for healthfulness. This doctrine he is preaching abroad as well as at home and it is having a result. Dr. Patten asserts that there is no place more healthful for children, that children's diseases are not requisite parts of their lives here, that the general plane of health is higher than normal, fevers and contagious diseases being infrequent and scattering. His doctrine of life in the open and of activity and freedom from worry is a specific for most of the aches and pains of life and as he practices what he preaches he is a potent influence for health, indeed. Dr. Patten has done a great deal for the district and this appreciation of his work is very gladly written.

Another maker of empire is the merchant.

We have tried to picture in these pages the remarkable progress made in every line of human endeavor in the Imperial

Valley in less than ten years. In reclamation, settlement, education and other lines the growth has been described and it is interesting to turn for a moment to the business world, and see what progress has been recorded there.

The second oldest general merchandise firm in the district is an excellent example of what the needs of the people have developed. Hauling a $2,500 stock of supplies from Flowing Well, George and L. J. Varney entered Imperial in the fall of 1902. They erected a small building on the main thoroughfare, which was not a crowded one in those days, and put in their shelves. Their floor space was 1,500 square feet and they were their own clerks, book keepers, buyers, managers, and, for the first few weeks, housekeepers, too. Business was good. For several weeks it amounted to more than $100 a day and a better and bigger stock was demanded. They ordered and received the first carload of goods ever to come down over the newly built Southern Pacific branch. At that the road was not far enough completed to bring the car clear to Imperial and the brothers hitched up a freight wagon and drew their carload of supplies the last four miles overland.

For the sake of what artists call contrast let us pass over eight years and note the change. In the business year of 1909-10 the Varney Brothers & Company, Incorporated, has five stores, with an aggregate floor space of 28,000 feet, there are 32 employes, a stock valued at more than $85,000 is carried, the company buys more than 160 carloads of goods each twelve months, and has actual sales totaling $45,000 a month or more than $540,000 a year. The company owns its building in Brawley, all but that housing one department in Imperial, and has long leases on stores in the other towns, Heber, Holtville and Calexico. In Calexico W. F. Holt is, at this writing, constructing a building for Varney Brothers, which will give the firm there one of the finest stores in the Valley.

In all fairness it is necessary to add that this phenomenal business achievement is not due wholly to the natural development of the Valley; a firm that has made such strides in eight years must have done something to conserve patronage and add business beside merely dealing squarely. As much as anything the success of the Varneys is probably due to the policies they adopted early—to back the goods they sold and sell the best, to "boost" for the Imperial Valley in every legitimate way, and to admit to an interest in the firm the managers of the several stores.

In 1905 the firm was incorporated with a capital stock of $75,000, but this was not sufficient to handle their business and they reorganized in 1908 with a capital stock of $200,000, of which $110,000 is paid up. With plenty of capital available and a strong reserve of stock for future growth they are no longer worried by petty troubles and look forward to rapid continuous development. The men who are co-operating with the two brothers for the success of this big local institution as managers are: L. A. Potter, Calexico; L. A. Biggs, Holtville; William Buckmaster, Brawley; M. H. Cavin, Heber, and A. C. Gaines, M. O. King and Grant Booher, department managers, Imperial. It is to these men that the brothers give a large share of the credit for the size and stability of the house at the close of the decade.

They Built for the Future

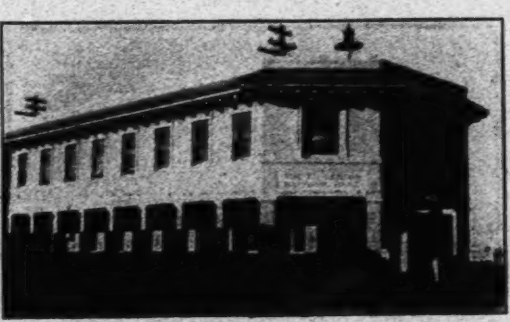
George Varney, the head of the company and the largest stockholder, owns a ranch four miles east of El Centro, 220 acres in extent and all under cultivation. It is at present leased.

To C. N. Perry, one of the first engineers on the Colorado desert, and, throughout the history of the organization of the Imperial settlements and the reclamation of the district, a faithful, tireless, and non-partisan leader, the people owe more than they know. Engineer Perry has been referred to frequently as the one man who, throughout all the turmoil and dissension of the years between 1900 and 1908, was never swerved from his purpose, drawn into petty quarrels nor stampeded into a selfish partisanship. He is the one man who attended to the engineering necessities of the district from the first and was as zealous in watching the tricky Colorado and averting disaster from that source wherever possible as a dozen or more other leaders were in the noble and unselfish pursuit of ruining each other at any cost whatsoever to the Valley.

Mr. Perry was kind enough to go over the parts of this history referring to the technical work done from the earliest times to the close of the decade, and to him the writer of these lines owes grateful acknowledgement.

The permanent success of the Valley, as of all communities, depends upon the financial foundations on which it rests; these foundations depend more largely than we are sometimes inclined to believe on the stability and business integrity of our banks and bankers. Let us see how one of these, a typical Valley bank, guided by a representative Valley banker, has measured up in the last few years of the first decade of which we are writing.

Take the El Centro National Bank as an excellent example. Its President, F. B. Fuller, came to the district from Herford, Texas, where, as cashier of a leading bank, he had established a reputation for sound judgment, integrity and ability. In the spring of 1905 he made a tour of the western part of the country seeking the best available opportunity for the future and after a careful study of conditions in Idaho, Oregon and the whole of California, he was convinced that the Valley offered the greatest inducements to a business man. In spite of the fact that the Colorado river was just then beginning its long attempt to ruin the Valley, Banker Fuller saw the future with a big



President Fuller Built with Faith

vision and he purchased one of the best corners in the young townsite of El Centro with a view to opening a banking business. Conditions were such, after he had added to his purchase that of a 160-acre ranch 2 miles northeast of El Centro, and a residence lot in the townsite on which he built the first permanent residence, that he decided to postpone his plans for a bank and at the urgent request of officers of his old institution, the Western National of Herford, he returned there and took up his former duties.

In 1907 his business instincts told him that the psychological moment had arrived and he returned to El Centro with his family and opened the doors of a new bank in modest quarters in a rented building. His success was instantaneous. Within a few weeks deposits had come in in sufficient quantities to make permanency certain and in 1909 work was begun on a handsome bank building on the lot the sagacious banker had selected four years previously. As the picture used in this volume shows, the El Centro National Bank building is one of the most appropriate and handsome edifices in the Valley.

Particularly in a new country no subject could be of more vital importance than that of land titles. Much of the delay in the development of the Imperial Valley found its origin in a popular misconception in regard to the validity of titles here. This deplorable condition cannot be accounted for reasonably save that there was no authority in the Valley on titles and no accredited standing could be furnished. For six or seven years this condition hampered development. Then the farmers awoke to the real situation and proceeded to organize the Imperial County Abstract Company. In the meantime the People's Abstract & Trust Company, of Riverside county, had long been planning to extend its operations to the new territory on the south and in the course of events came into the Valley, and absorbed the first organization. The result is a strong and capable corporation, in plant and equipment equal to any title company in Southern California.

Concerning this all important title matter Manager W. E. Morton of the company, a competent authority, says:

"The matter of titles in Imperial county has been an interesting one from the days of the earliest settlers and probably no subject is more misunderstood than this same one. Imperial county titles at the present time, are perhaps in better shape than in most any other county in the state of California. This, owing to the fact that the government has given each ranch an arbitrary number and has set posts at each corner of each ranch, in addition to the usual quarter section stakes and corners. Thus, every ranch in the Valley is actually doubly marked, a condition which does not exist in any other part of the state. This double marking was made necessary by reason of the faulty survey made by the government in 1856. At that time this county was known as the Colorado Desert and was supposed to be absolutely barren and valueless, and the surveyors making the survey thinking it would always remain so, made a hasty survey and made a mistake of something like two miles north and south and one and one-half miles east and west.

"From 1898 to 1901 settlers began coming into the Valley and in locating the lands, the discrepancy in the early survey became apparent and in 1900 the Imperial Land Company made a new but unofficial survey which changed the description of many of the tracts of land and this survey and others which followed in an endeavor to straighten out the various claims caused all of the subsequent confusion in the titles. In July, 1902, Congress passed an Act to relieve the settlers of the confusion incident to the many surveys that had been made since the survey of 1856 which Act provides, among other things, as follows:

"'Provided, that nothing herein contained shall be so construed as to impair the present bona fide claim of any actual occupant of any of said lands to the lands so occupied.'

"Therefore, discrepancies can be corrected so that eventually the record title will conform to the land actually occupied. Thus, providing that the settlers should retain the land that they actually occupied and providing for a resurvey which would definitely locate such tract of land. This survey has now been completed and patents are being issued." The excellent work being performed by this company is most heartily to be commended.

Not all the empire builders are reclaiming land or engaged in business in the Valley: there are men in the offices where the affairs of these reclaimers must be attended to, whose part is just as important. Consequently it may be well to turn to some of them and see what their share has been in the making of the present Imperial settlements.

Phil D. Swing, deputy district attorney, has been a potent factor for development. The district attorney's office in this county has had to deal with big problems of organization and legalization that not only had to be solved but that largely without any precedents on which to base action. Conditions in the Valley were unique and it is greatly to the credit of the office that there has been so little confusion and litigation.

And in a certain sense reference to the district attorney's office, especially in the last year of the decade, has been to Phil Swing, the deputy, as important legal matters have made necessary the absence of his chief from the place. That the deputy did not fail the county in this time of need is greatly to his credit, the more so because Mr. Swing has served from the first without any remuneration from the county. This unfortunate condition has not deterred Mr. Swing from doing his full duty and a movement is on foot at this writing to promote him to the district attorneyship in recognition of his ability and devotion.

Mr. Swing came to the office he holds with an excellent training. A native son, he attended state institutions, graduating from the high school in his home town, San Bernardino, and from Stanford University in 1905. In his senior year at college he was elected president of his class and was class orator. His scholarship earned him election to the honorary societies of Phi Beta Kappa, and the legal organization, Phi Delta Phi. Shortly after leaving college he was admitted to the bar in San Bernardino, but when the new county of Imperial was organized he decided to move on to the ultimate frontier of the state and here he came to make his home in October, 1907. He immediately became law partner of J. M. Eshleman and later his deputy. In April, 1908, he became the first city attorney of Brawley, but was forced to resign later because of the pressure of business at the county seat.

Swing is energetic, popular and efficient; his ability being recognized by his fellow citizens who have made him secretary of his Masonic lodge, director of the El Centro Chamber of Commerce, secretary of the board of Library Trustees (in which capacity he was active in securing a building through the Carnegie foundation) and looking upon him most favorably in his campaigns for higher honors.

The first deputy district attorney in the Valley was George H. P. Shaw, a very able lawyer, who came from the office of the District Attorney in San Diego in 1904 to represent that official in the rapidly growing settlements on the desert. Mr. Shaw found a great deal of work and it is to him that credit is due for the first briefs on those intricate and delicate questions which have since concerned the legal officials of the county. In those days it was exceedingly difficult to practice law, even in behalf of the county, because the courts were almost 300 miles distant by rail and frequent and tiresome journeys, with great loss of time, were necessitated. After two years Mr. Shaw was recalled to San Diego but the lure of the desert was strong on him and he returned to take up private practice in Imperial June 1, 1907.

While Mr. Shaw was a native of Manchester, England, where he was born in 1869, his mother being a native of that country, his father was an American, and the young man took naturally to American ideas, and came early to this country. He graduated at the George Washington University, City of Washington, taking the B. L. degree in 1887 and was then admitted to practice his profession in Massachusetts in 1892, coming to California in 1892, where he was admitted to the California bar in San Francisco.

Two years later he removed to San Diego and while practicing his profession there he became greatly interested in Imperial Valley, which was then a part of San Diego county.

In 1904 Mr. Shaw came here as deputy district attorney. He served as city attorney from the spring of 1905 to 1906 and was again chosen to fill that office in August, 1907, and has continued in that position to the present.

Mr. Shaw is a member of the directorate of the County Bar Association, which organization he represents in the California State Bar Association, being a member of the grievance committee of the latter organization. His thorough acquaintance with law, and particularly that portion of the law which relates to local conditions, has given to Mr. Shaw a foremost place at the county bar and has won for him the confidence of the public, as illustrated by the extensive practice which he has won.

During the last year, the construction of many municipal works, including sewers, water system, city hall and Carnegie library, has added to the duties of the office which Mr. Shaw fills, and so carefully have the requirements of intricate laws been followed that no act once taken has been rescinded or questioned.

G. W. Donley of Imperial, is another city man whose hand is to be seen in the development of the district.

In 1880 the great Southwest was virtually unknown country. It was about this year that Mr. Donley became impressed with the future of the country lying west of the Missouri river and he began to study it and to advertise it. It was the beginning of a thirty year career of colonization for him. Helping with the settlement and exploitation of Western Kansas he moved later to Colorado where he had an important part in upbuilding the famous Grand Valley district. In 1886 he moved farther on and for almost twenty years he helped in the colonisation of San Diego county, being particularly interested in the growth of the now beautiful community of Escondido. It was inevitable that, when the Imperial settlements began first to attract attention, one of the first visitors to the desert was Mr. Donley.

J. W. Donley's is a Real Home

Since his earliest visit, in September, 1901, until the close of the first decade, he was closely connected with the building up of this Valley. He brought scores of people into the country and interested hundreds. With an unbounded faith in the future of the district he finally moved across the mountains in 1907 to make Imperial his home. In the town of that name he has since conducted an important real estate business, directing from his office the affairs of a highly improved ranch of 320 acres two miles north of Holtville, considerable town property and a school section 3½ miles southwest of Holtville.

Mr. Donley is not a promoter, he is a propagandist. His energies have been bent toward the successful advancement of the best interests of the Valley, and the many persons who came here as a direct result of his efforts, have been persons who added to the prosperity and high character of the whole population.

The Stahl Brothers of Brawley are also inherently pioneers. America and Westward! That was the old time cry. Probably the same spirit that caused the grandparents of the Stahl brothers to cross the Alleghanys and settle near Canton, Ohio, in 1828, when there were but two log huts to mark McKinley's famous town, caused these boys to locate in the Imperial Valley in the spring of 1903. It was the spirit of opportunity, the call of the desert; to help in building up from a wild and barren waste a great and good country, that lured these boys from their pleasant homes in the east, and how well they have succeeded is shown by their fine ranches, homes, and mercantile business in and around Brawley. Their success is the result of combined efforts and hard work.

In farming, they had remarkable success, each year netting them greater returns and each year adding their portion of development to the country.

Not being satisfied with farming alone they ventured into the mercantile business, investing thousands of dollars in a stock of merchandise, when the turbulent Colorado rushed unfettered to the inland sea.

Their friends cried "fools;" wholesaler said "pay cash;" customers said, "give us credit." Thus with capital, prudence, judgment and hard work they entered into the new venture and today people cry, "what success!"

The intelligent public appreciates their efforts and recognizes the successful part they have performed in the development of the Valley.

The Imperial Valley has called men of many professions to herself but no man in her borders has made a more remarkable change of vocation probably than Edmund Welch of Brawley. Mr. Welch was for many years a professional athlete, having a record as a wrestler that was unsurpassed. Fortunately (although it may not have seemed so at the time) Welch soon found himself unable to get matches because he was for a long time undefeated, and in this predicament, while in Southern California, he began casting about for some other business. He was irresistibly drawn to the Imperial Valley and in 1906 came into the district, arriving with a total capital of four dollars.

Very few men would have considered that a start but Welch had wrestled with a good many stronger antagonists than a mere lack of money and he went to work teaming. Inside of a few weeks he had enough saved to purchase a team for himself and in the course of a few months had more stock and was contracting for himself. He found a piece of unoccupied land in the north end of No. 5 district and filed on that, then went to Brawley and established himself in the real estate business, becoming vice president of the Teasdale & Pound Company. In 1910 he left this company to go into the business for himself, in the meantime having continued his grading crew and having entered into a partnership in that line with Robert Sexsmith. Today they have 26 head of work stock and several men busy all the time.

Edmund Welch Has a Strangle-hold on Success

In the real estate business he has made a specialty of ranch property, particularly in the fine sandy country within No. 8 water district and has been exceedingly successful. He estimates that his holdings at present are worth $15,000 and so enthusiastic is he that he has almost persuaded his two brothers and three sisters to leave their homes in New York state and join him in the Valley.

Not only every calling, but almost every nation has contributed some one of its children to the population and prosperity of the Valley, and the resultant cosmopolitan character of the people here has hastened development. Much as we know in this country about farming the old world can still teach us about horticulture and arboriculture and it is to France, Spain, Armenia and Italy that the Valley owes much for its early success in grape raising.

One of the men who came to the district from the continent because of his knowledge of vineyards was A. Caillaud, who was engaged to do some important grafting on the Corwin ranch in 1907. M. Caillaud knew the grape business thoroughly, and had had experience with conditions in this semi-arid country while in Riverside, where he worked for several years prior to coming here. He was employed for a few short weeks, originally, but, like many others, he became enamoured of the country and—didn't go back.

With a keen appreciation of the possibilities of this new section, and knowing full well just what sort of soil is best suited for grape raising, his specialty, Mr. Caillaud did not locate at once, but began looking about to see where conditions were best suited to his exactions. There were many parts of the Valley, he says, where he found that grapes would thrive, but after a careful study he decided on an 86-acre piece seven miles northwest of Holtville. Still cautious he did not immediately put the whole piece to grapes, but chose part only for that purpose and on the rest of the ground sowed barley and alfalfa.

And Yet the Caillaud's Find Time for Pleasure

There could be no reasonable expectation of profit from the grapes before the fourth year, therefore Mr. Caillaud decided to take out an insurance policy on his place, in a manner of speaking, investing in something which would yield returns against the time when the grapes came in. He was thus led into dairying, and with a string of 30 cows is able to show a clean profit net every month from them. In the meantime his grapes are thriving past all belief and a bountiful yield from them will soon make it possible to turn the forage crops under and devote the whole ranch to his specialty, a vineyard.

In the cities are found many professional men of unusual ability. Judge F. C. Farr, of Imperial, who has been mentioned in a previous chapter in connection with a case attacking the legality of acts of the California Development Company, became enamoured of the Valley and settled here from choice when he might have been just as well in any one of many places where there was no pioneering to be done. The attorney came here from Kansas City, Missouri, in 1903 because of illness, but he became so interested that, when his health was fully restored, as it was very shortly, he decided to make a permanent home here. He was one of the friends and advisers of A. H. Heber when the latter was president of the California Development Company and it was Farr who suggested to the corporation officer the doubtful validity of some of the privileges Heber had come to look on as rights. One of these was the appropriation of water from the Colorado river, which was then generally considered a navigable stream and as such was not subject to appropriations save with the consent of the War Department. Judge Farr made his point so strong that Heber asked him to go, with others, to Washington, to aid in securing permission to use the water. No such permission was granted but this was the beginning of an earnest search made by the Development Company for firmer legal ground on which to stand.

Judge Farr was not satisfied to confine himself to his law practice so purchased three ranches, at different times, which he and his wife still own and which are being put under a high state of cultivation. One of these is 160 acres in extent in Mesquite Lake district, another 175 acres two miles east of Imperial on which the Farrs make their home, and a third 80 acres near Calexico, purchased late in the decade. The combination of legal business and ranching has thus far proven beneficial but as values increase it becomes more apparent that law will have to abdicate eventually in favor of agriculture.

The Best is None Too Good

Service on the bench of the superior court of the state of Missouri gives Judge Farr good right to his title; a particularly proud one to him who has been for 37 years engaged in the practice of law.

In 1905, when the district was only sparsely settled, a rancher paid Dr. A. G. Toprahanian of Imperial, the compliment of walking 18 miles to have him pull a tooth. The dentist has had many good patients since that time, and many grateful ones, but he says now that, as he looks back on that occasion, he thinks no one was ever quite so complimentary as that old timer.

Dr. Toprahanian, whose unusual name grew on him in his native country of Armenia, has been a resident of the United States for 20 years, and of the Imperial Valley for five. The dentist, shortly before coming this way, had spent considerable time in the San Joaquin Valley, and when he saw the Imperial settlements he decided that the future of this district would be even brighter than that of the rich river lands in the central part of the state. Consequently, after his graduation from the dental college of the University of Southern California, and a four years practice in Colton, he moved to Imperial, being the first of his profession in the Valley.

A small ranch in the rich Mesquite district was purchased by the doctor some time ago, but several attempts to operate it and to keep up with his growing practice at the same time proved failures and he now has a leasor on the place. There are 80 acres in the piece, all under a high state of cultivation, and it has increased in value materially since its purchase. To Dr. Toprahanian, by the way, the authors are indebted for many of the excellent pictures used in this book.

W. D. Conser, of Imperial, once saw more than 200 miles. He was in Phoenix, Arizona, at that time, and what he saw he describes as "the opportunity of a life time," the Imperial Valley. That was in October, 1903, and in November Conser was in the new settlement of Imperial, taking his place as one of the leading merchants.

There have been many changes in the town in that time and he has helped make most of them, for he is one of the most public spirited of citizens. Conser (whom everyone in the district knows, or ought to) is a firm believer in his town and the Valley, not only because he is a good citizen but because everything that helps the city or the Valley indirectly helps him.

There are only a few men who can see that, and they are getting to the top fast.

Conser brought with him a stock worth probably $2,500, he says. He started in with honest business principles, fair dealing and plenty of advertising for his foundation and built up a substantial, growing trade. He occupied first a store built for him next the Imperial Land Company office, that brick building at the corner of Ninth and Imperial avenue in Imperial.

Such Fields as Children Love

Conser's store was in the frame structure belonging to E. E. Pascoe, and was 25 feet by 50 feet in area. Business grew steadily from the first and when the merchant had, with the aid of his family, who are all members of the firm, so to speak, weathered several storms which affected the whole district, such as the floods of 1906 and 1907, he found himself crowded for room and had another store building erected, one door south, 25x100 feet. In this he has today a stock worth $15,000 and a business that is worth so much the firm doesn't want to sell.

Mr. Conser, his wife, his sister and his son, are the principal agencies which keep the company to the fore. They are as much a part of Imperial as the postoffice or the board of trustees, and have done as much in their way, for its success as either.

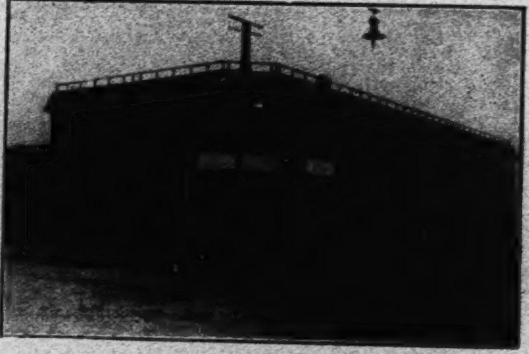
Another Imperial merchant and business man has an interesting story, which is told by a friend in the following picturesque sketch:

"The day before Christmas day, 1901, a wagon well stocked with goods and drawn by four horses, was to be seen wending its way through the little village of Imperial. The owner, though not a strong looking man, has since proved that he had grit and determination which have carried him through many a rough place. He had been told in Los Angeles that Imperial was going to be a great country and he believed it, and staked his little all on the future.

"He and his hired man had been nine days crossing the 220 miles from Los Angeles to Imperial, most of the way being rough and thirsty desert. Although it was his first journey of the kind, Mr. W. J. Mitchell always speaks of it as a pleasant and successful one. He put his horses to work on the ditches in Maston's Camp and shortly afterwards went to work on his own ranch northwest of the town. He bought 10 sows and other stock and tried ranching for a time, but,

> 'Ranch work and he
> Did not agree.'

"He then went to Imperial city and started at his own trade, watchmaking, and soon worked up a good business. He then began to buy town lots and build and he is now, with the assistance of some of his friends in England, building in Imperial one of the most substantial and up-to-date hotels in the Valley at the corner of Eighth and J Streets, where he owns a choice 100-ft. frontage.


When Completed Mitchell's Hotel Will be a Monument

"Mr. Mitchell was one who was not ashamed of his religion when he came to the rough desert. When he had been here but a few weeks he and three others started a Sunday School in the dining room of the old adobe hotel at Calexico which was the beginning of the Congregational church there now, and afterwards was a good help in building up the Methodist church at Imperial, he being the leader of the adult Bible class for nearly four years. The Rev. H. C. Mullen was the minister, through whose energy the church was built and got out of debt during the hard times of the early days."

Going back to the country again let us visit more of the ranches and find out how and why these hardy men came and succeeded.

A peculiar saying is often heard in the Valley to the effect that a new-comer who has farmed all his life "back east" stands a much poorer chance of succeeding than does a man who never saw a farm before. This is true in a measure, for old standards do not measure up here, and old methods will not suffice. These facts are hard for an experienced farmer to grasp, consequently the tendency for him is to go ahead under old rules and—fail. On the other hand an inexperienced man starting with no preconceived notions of how things ought to be done, is much more amenable to reason and more to take advice from men who understand conditions and so to succeed.

There is a third class of men, however, who are better equipped than either of the others and who, as a usual thing, make a success from the outset. These are the ambitious young men with agricultural college training, who are well grounded in the science and practice of farming. One of these men is J. C. Chalupnik, a graduate of the Agricultural College at Ames, Iowa, who came to the Valley in April, 1907. Chalupnik worked his way through college and on his graduation was sent to the coast to take charge of a large dairy near Los Angeles, but heard of the Imperial Valley and at once turned his steps this way. He wanted some experience before taking up the new country and so joined himself to a threshing crew. In this humble and democratic guise he learned more about

Here Was a Practical Theorist

the Valley in two months than a prouder man would have learned in as many years: this also brought him to his destiny. In the course of events he met J. H. Blodgett, a well-to-do rancher living north of Holtville and Blodgett immediately took a liking to Chalupnik and induced him to abandon the thresher. The two became fast friends and as each had something to contribute to the common cause went into partnership.

Chalupnik decided that hogs and a dairy run in connection were the staples destined to pay most consistently, and he started with 80 of the former and a dairy string of 60 head.

As a final evidence of his interest and belief in the Valley it may be stated that Chalupnik has encouraged his younger brothers and sisters to come to this section to live and that ten of them are now located here. In the aggregate the family has acquired 320 acres of land under the irrigation system and 800 acres on the Eastside under the high line canal.

Too much cannot well be said of the men who have pioneered along various lines of agriculture and horticulture in the Valley and have determined for the benefit and information of their neighbors no less than for their own, what things will best be raised here to make the district yield the largest returns. The early comers had high hopes and the colonization officials and agents made large promises for the district but it remained for a few men with faith and experience to experiment and make suppositions certainties.

E. H. Erickson in Brawley believed from the first that all manner of fruits would grow here and he set out a large orchard to ascertain which varieties and what kinds would succeed best. It is a pleasure to record that practically everything he set out came to an early maturity and has born fruit and proven a success. His place at Brawley is one of the most interesting and profitable to visit in the whole Valley. Mr. Erickson is a thorough horticulturist and his success is, of course, largely due to his methods. But he is a genial and helpful man and his secrets of success are available for the use of such of his neighbors as care to profit by them.

It is the dream of most young men to make a fortune some day through owning a gold mine. The dream is shattered for some; a few realize; a few pursue it all their lives without success; and some enter upon it with the same care and good judgment they would use in any business, so that they can make it steadily and increasingly profitable. But the life of the mining man is hard, he is usually located in a frontier camp and he is exposed constantly to dangers, privation and hardship. It is not strange that, after making a competency, most mining men abandon active work in that line and enter some other.

H. H. Pollock, a rancher owning 120 acres northwest of Imperial is one of these. Mr. Pollock followed mining for several years, his last location being in Manhattan, Nevada. In the fall of 1907 he decided to try some other calling, chiefly to get into a dry, warm climate, and to get away from the dust and gases of the mines, realizing that these things were undermining his health. Being somewhat familiar with conditions in the Imperial Valley he came this way, purchased a ranch and entered with great spirit and interests into the life.

"I gave up the make-and-lose game of mining," says Mr. Pollock, "and took a permanent job, and I have never regretted the change." Purchasing his ground as he did for $4,000, he has spent three happy and prosperous years on it and now says he would not sell for less than $8,000. As a matter of fact no reasonable offer would probably tempt him, as he is enamoured of the country and the work.

It may seem strange that Pollock was able to make a go of it from the first, as he has, but as a matter of fact he was raised on a farm "back east" and only took up mining when he was grown. He is a careful business man, but, like many mining men, when he is sure of his proposition he is a plunger. He is ready to stake all he has on one turn of the wheel and it so happens that here, as it frequently does, the wheel has turned favorably for him. So far, to change the figure slightly, he has drawn no blanks.

A large flock of chickens is one of the things Pollock is pleased and satisfied with. He believes this is a great country for poultry because it is so dry and is planning an extensive addition to that branch of his farm. Later he will set out an orange grove, having satisfied himself that the industry is a comer in the Valley. At present the 120-acre piece is in alfalfa, grapes, and corn land.

That it may not appear that every man in the Valley has found his road strewn with gold it is of value to turn here to the story of one man who has, from the first, met almost uniform ill luck and yet who, by persistence and courage has won out and made for himself a competence. C. H. Walton is a skillful farmer, a hard worker, and a good manager, but circumstances have conspired to make his nine years experience almost discouraging. During the first year after his arrival in 1901 Mr. Walton worked on the irrigation company's ditches, taking up a piece of land in an unfavorable location where the soil was not good. When he was ready to farm he found this out, so abandoned the piece and took a lease 1½ miles south of the present site of El Centro where he remained for two years. When his lease expired he went to the Eastside and in the winter of 1903 he located and began work on 160 acres in the southeastern corner of No. 7.

When this ranch was beginning to pay the river came in. Water was scarce, the whole system of No. 7 was threatened, times were hard and Walton was forced to sell to save himself. Most men would have left the country but he saw beyond the troublous times and stayed, finally purchasing 160 acres adjoining his old ranch. Here he put in as fine a ranch as there is in the district. But his trouble were not over. After six years of unremitting toil spent in helping to reclaim this desert, he fell a prey to unscrupulous men who found a flaw in the title to his land and filed a contest. The heart breaking struggle thus begun lasted through three years, but it begins to look, at the close of the decade, that Walton would win out, his good faith and intentions being patent.

C. H. Walton Faced Down Adversity and Won

With all these difficulties the Valley has proven a friend to him. At this time he has 500 head of hogs, several fine brood mares and colts and a place that is marked even in the rich and highly developed neighborhood in which he is located.

The magazine cowboy who is pictured as long on revolvers

Hog Breeding Pays

and broad hats and exceedingly short on morals is a thing of the past if, indeed, he ever existed. In his place you will find the average cow puncher of the Southwest quiet of speech and manner, businesslike in his work, civil in his deportment and really quite unpicturesque. He has all the qualities of strength, endurance, agility, courage and humor accredited to the ilk but he keeps books just like a banker, smokes ordinary tobacco and is invariably a respectable citizen. His picturesqueness lies in his capacity for hard work, his quickness with a rope and his sureness on a horse.

One of these modern stock men is W. L. Manahan of Brawley. He rides with his punchers, attends to the details of his business himself and when it comes to cutting out yearlings, or branding a maverick he is as good a hand as there is in the outfit. Manahan has been with stock all his life, handled them and traded in them in New Mexico and came to the Valley in the fall of 1903 to enter into the business of buying and selling them. Since that time he has turned off more than 1,000 head each year, leasing land on which to run them and at the same time doing an extensive commission business in steers, hogs and sheep.

At an early date he secured a half section in the north end of No. 5 and there, with the place now under cultivation and all in barley and alfalfa, he runs from 1,000 to 2,000 hogs. His thorough familiarity, not only with the ranch end, breeding and raising stock, but with the business end, buying and

Manahan is Not a "Picture" Cowboy

selling them, gives Mr. Manahan a marked advantage over many ranchers and he is thriving at his old game. In the pictures is shown a bunch of steers just being driven in to be put on good Imperial Valley pasturage and turned off in six months as fat as corn-fed stock.

He Brings in Feeders

R. M. Fuller is the third of the Fuller brothers who came into the Valley from across the mountains to develop this district in 1902. He was a strong, willing and competent farmer boy and while his brothers took up land he contented himself with working out, either for them or for others, making such good wages that his savings at the end of eight years amount almost to what a good farm would have brought in.

In 1900 he leased a large piece of land from his brother Arthur, taking charge of the remainder of the place in addition, and put cotton in 130 acres. Starting with an excellent piece of ground, and having paid close attention to the experiments of the year of 1909 he went to work to make his field a banner one and at this writing his place promises to break all the great records made in 1909 for Imperial Valley cotton.

R. M. Fuller is Proud of His Cotton

In the picture Mr. Fuller is shown hoeing cotton in the good old fashioned "down-South" way.

At the time the photograph was made the plants were six weeks old and from six to fourteen inches high. The Fuller ranch is three miles south of El Centro.

The eyes of a people follow a successful man: everyone in the district knows something of Nels Jacobson. Jacobson belongs to the honorable society of the pioneers. In the fall of 1902 he came in from Highlands where a 14 acre orange grove was paying a handsome income and where an ordinary man would have been content to stay. But Jacobson is essentially a pioneer and the future of the desert appealed to him strongly. He filed, as did his wife, on land six miles east of Imperial, at the upper end of the justly celebrated Mesquite Lake country, and now they have a splendid 720-acre ranch. Two of his stallions, the Percheron and the Clydesdale, are shown in the pictures, and their get may be found scattered about the Valley and in the hands of well satisfied owners. Jacobson has given most of his attention to horses and hogs. In the past eight years he has handled something like 43 carloads of hogs, receiving for them prices ranging from five dollars to $10.35 a hundred.

Proud of His Horses!

The Clyde Stallion

The ranch is a model: not gaily decorated with painted fence posts and a maze of costly corrals and barns, but built for utilitarian purposes, built strongly and well, kept clean and brought to its highest efficiency by attention to details. Two hundred acres of alfalfa furnish grazing for the horses and 1,000 head of hogs, the balance of the piece being devoted to corn and barley for fattening and finishing. With such a ranch it is not

Small Wonder the Jacobson's Prefer Their Valley Home

surprising that the charms of living in the center of a rodolent orange grove in the delightful country at Highlands are not sufficient to draw the Jacobsons from their Valley ranch, nor that Nels Jacobson's address is still Imperial.

Francis Heiney is a Thorough Horticulturist

He Has the Prize Young Date Palms

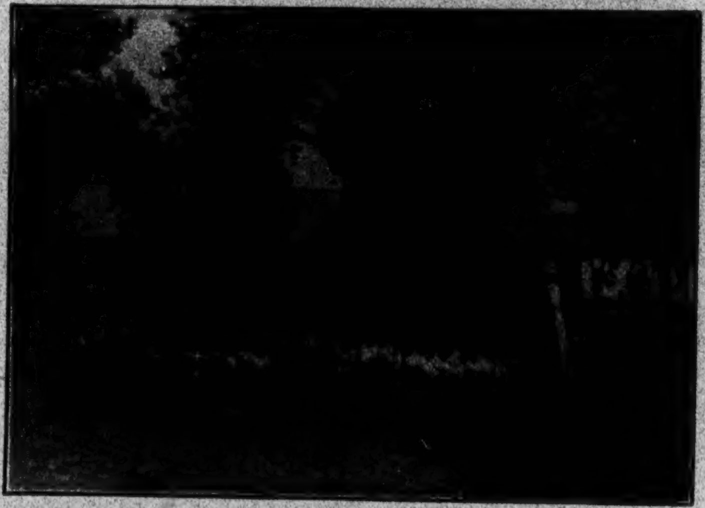
If ever a man was deliberate about making a start at ranching Francis Heiney of Brawley is. Since 1903 he has been observing how other men raised their crops, what they planted and when, what success they had and if they failed why it was. For five years he has been experimenting for himself on two small pieces of acreage in the city limits of Brawley, where he now has no less than 17 varieties of figs, 40 varieties of grapes, specimens of almost every tree or shrub or plant that promises well for the Valley including several St. John's Bread trees, rows of roselle plants, several varieties of berries and tomatoes, all known kinds of melons, orange trees, several kinds of eucalyptus and the best looking and most thrifty date palms in the district. "For seven years I have been trying to find out how," Heiney says. "Now I am going to ranch for myself."

Mr. Heiney is a remarkable man in many ways. He has studied horticulture and agriculture in Europe, Central America, Alaska and many parts of the States, settling in the Valley in October, 1903. He was one of the first horticultural commissioners of the new county and before that time was inspector for San Diego county. Without doubt he has the most interesting and instructive piece of ground of its size in the Valley, possibly in the entire Southwest. Certain it is that experimenters and scientific men from all over the country have been to see the Heiney place and most of them have gone away marveling. In the fall of 1910 Mr. Heiney will begin active development work on his ranch, a piece of ground comprising 44 acres one mile west of Brawley. When he really settles down to farming it will be worth while to watch his achievements.

Among the show places of the whole Imperial Valley there is no one that has more of interest, either for the proud resident who wants to see evidences of what things are possible in the district, but to the outsider who has heard and comes to be shown, than is the ranch of D. G. Whiting. This beauty spot is two and one-half miles south of El Centro on the Dogwood ditch, where the county road to Heber crosses the Southern Pacific tracks at an angle. The place will be easily found from this description but if it were in the middle of hundreds of others and unmarked by other signs, it would be easily found because of its tall and graceful trees, the solidity and permanent character of its buildings, for its orchard, deep reservoirs, straight, strong fences and other indications that the owner is a rancher and not a beginner.

Mr. Whiting came to the Valley when it was not yet definitely settled which of the hundreds of crops possible to be grown there would prove the most satisfactory. There were as many

Here D. G. Whiting is Growing Prosperous theories as there were crops and several adherents of each theory. There was no one, however, who could offer any arguments why dairying should not pay and Mr. Whiting decided to put his place in with that future for it. More than that he decided that nothing short of the best stock available would suit him and so he went to a great deal of expense and trouble to secure a fine string of thoroughbred Jerseys. Mr. Whiting began with a good herd but he was not content with that alone, he has, since that time, bent every energy toward improving the strain. The result is that, today, he has one of the finest dairy strings in the Southwest and by far the best Jersey string in the Valley.



Here is the Woman's Investment

His first standards have been raised and he is still building up the herd by the most scientific methods, combining with these theories of dairying and breeding, a lot of good common sense and hard-headed ranch and business reasoning. He has done a great deal for the dairy business of the district by encouraging and aiding every movement looking to the raising of standards of breeding.

It is a well known fact that the demand for dairy produce, poultry and eggs has, in the past few years, very much exceeded the supply, especially in the large cities of the land. The Imperial Valley, ideally suited to production in these lines, is also well located in proximity to Los Angeles to make economic shipping possible, and it follows that those who have had the foresight to engage themselves in the dairy and poultry industries have done so with great profit and success. With many poultry raising is nothing but a side line, but J. D. Conrad, two miles southeast of Imperial, has combined this line with a dairy and is making good. Mr. Conrad carries a string of good dairy cows, some 500 hens and half as many turkeys. The latter have been a source of revenue averaging $400 a year, and, as there is little expense attached for feed, this is practically profit.

The keynote of success in such lines is, of course, good stock. Conrad is an enthusiastic supporter of the theory that blood tells as surely in raising turkeys as in rearing race horses and he has constantly endeavored to raise the standard on his ranch. The importation of fancy Mammoth Bronze and Oregon wild stock has had visible results for good. Making a specialty of these lines he has learned just how to handle them for the best results in size, quality and breeding propensities. Within a year his plans call for 2,000 turkeys, every one from thoroughbred stock; this will put him in a position to sell to other breeders and will have much effect in improving the strains raised in the Valley, the profits and credit increasing proportionately.

Conrad came to the Valley from Wisconsin in June, 1903, and filed on 180 acres of land. The biggest mistake he has made since his arrival, he says, was when he sold 120 acres of this piece. However, by improving the remainder to the highest possible point he has put himself in a position to make a comfortable fortune in a few years even with the small unit he farms. The dairy herd pays expenses and allows him latitude so that he can experiment with the poultry and learn as nearly as possible what method will insure a maximum return on the investment. His ranch is well kept and his poultry worth seeing.

The Valley is frequently spoken of as an excellent place in which to regain health: Edwin Mead found it salutary in regaining a fortune. Mr. Mead gravitated in his early life from New York state to Illinois, thence to Kansas, thence to Southern California, in all his migrations adding a little to his store of knowledge but arriving in the Imperial Valley in August, 1901, with little beside his personal effects. He realized the value of land holdings and located on 320 acres five miles northwest of Holtville. In order to get capital for the development of his place he worked for the No. 5 Water Company, building in all more than 30 miles of ditch for that corporation. He was thus able to put his land into excellent shape and to transform it, in the course of a few years, from a desert waste to a real ranch.

Here the Mead's Made Their First Home

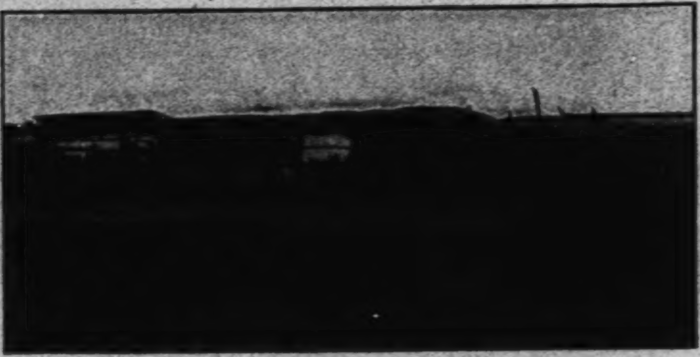
Practically the entire piece is now in alfalfa, pasturing some 200 head of hogs, a herd of beef cattle, 15 or 20 head of work horses and poultry enough to supply the ranch. To facilitate handling his work Mr. Mead has divided his piece up into small fields of 20 or 40 acres each so that he can irrigate at any time and still carry on a diversified stock pasturage without interruption. Nothing is more harmful to a crop of any sort than pasturing it while the ground is still damp, as many farmers in the Valley have found to their sorrow and Mead's plan is one now generally in favor throughout the district.

In the very early days of the town of Imperial a hotel was a great boon to those tired and dusty travelers who arrived in wagon loads daily from Flowing Well by stage. Mrs. Mead was the hostess of the hotel at the first, and to the pioneers she was better known than any woman in the Valley. Her interest in them and her anxiety to add to their comfort and to proffer them such conveniences as the country then afforded are remembered by many with great pleasure. Mrs. Mead now owns an 80-acre alfalfa ranch of her own near her husband's and she laughingly threatens to beat him at his own game in a few more years. Between them they estimate their holdings to be worth $50,000 today.

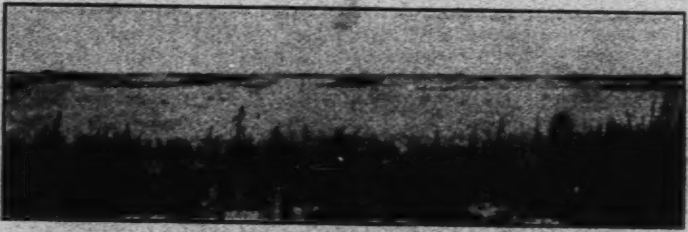
To many persons in Southern California, strange as it may seem, the California-Mexico Land & Cattle Company, and the Imperial Valley are synonymous names. So closely connected has been the development of the two. The model ranch of the Valley, owned by a stock company of Los Angeles business men, comprises 1,100 acres of highly developed ranch land in California and 876,000 acres just across the line in Mexican territory. It raises more stock than any ranch of its kind in Southern California and has recently come to be known for the high character of everything produced. Of the large acreage in Mexico 15,000 acres are now under cultivation, water being furnished by the same system which supplies the settlers on the California side of the line.

Bowker Believes in Ample Barns

Marvelous fields of grain and alfalfa and corn are raised on the Mexican land. The largest single irrigated barley field, 5,000 acres, ever known in the history of irrigation is one of the interesting sights on the C. M. ranch property and across the road is a 5,000 acres alfalfa field. The company raises steers in Mexico, pasturing them on the overflowed lands there wherever forage is available and sending them into the fenced fields on the American side to be fattened and finished.


The California-Mexico Corrals in 1903 Were Rude But the Stock Was Thoroughbred

Thoroughbred horses, cattle, hogs and sheep are specialties with the C. M. ranch, and four times each year auction sales are held at which this stock is disposed of. Barbecues make these sales a sort of Valley picnic and hundreds gather for a holiday whenever there is a C. M. sale. Walter Bowker, the manager of the great ranch, is a man of ability and force of character who has impressed himself on the life of the community by his interest in public affairs and in the development of the whole Valley.



The Largest Irrigated Barley Field

Henry Stroven, five miles north of Holtville, will go down in history as the first farmer in the Imperial Valley to sink an artesian well. He has other claims to greatness, but that one is indelibly stamped on him that all who run may read. He was prompt to see the advantage an artesian well would give him when, in January, 1910, water was tapped in flowing quantities in Holtville. He was still more prompt in acting, for he signed a contract within a few days, calling for the sinking of a well on his ranch. The water in Holtville had been struck at a depth of almost 900 feet and this was supposed to be the minimum at which artesian water would be found. But greatly to the surprise of everyone and to the joy of Mr. Stroven, who was footing the bill, the well began to flow when the drillers were down only a little over 800 feet. To add to his luck it was found that the well flowed more heavily than the Holtville hole, something over 100 gallons a minute being measured. The well cost Stroven about $1,100, but was cheap at twice that, since it gives him the best drinking water to be had in the Valley, and considerable water to be impounded and used for irrigation.

Stroven Sunk the First Ranch Well

With or without the well Stroven would

have made a success in the Valley. He is a crack horticulturist, coming here from San Bernardino to file in 1901 and to make his home in 1905. He believes this is one of the finest fruit countries in the world and backs his belief by planting a large orchard. He already has grapes, apricots and several other fruit trees rapidly coming to fruition.

Joseph Hanson, a prosperous rancher now four miles northwest of Imperial, started with a friend from their Middle Western homes to go to Alberta, Canada, in 1902. Their trunks were packed and they were about to purchase their tickets when a friend, Pierce Coy, an older man, asked them what they had heard of the Imperial Valley. They had heard little. Coy had made a trip to this much discussed region and had located some land and he urged the two friends to visit the desert. They decided to take his advice, going around to Canada by way of Southern California, but they never got past the Valley. Stopping for the summer of 1902 in Highlands, near San Bernardino, they came to the Valley in September and Hanson located 200 acres, his present ranch. Coy gave him work and as Hanson was a thorough farmer and a man of frugality and industry he soon had enough to go on to his own piece and develop it.

The Desert Hanson Obliterated

There is no better barley and corn land in the district than that in the neighborhood in which Hanson lives. He raises bumper crops every year. The hog business interested him and as he believed in it he cast about for means to raise green forage. Forty acres on his ranch was available for alfalfa but it was not enough; consequently he obtained 120 acres half a mile north of him, of fine clover land, and sowed this. Today it is practically all in and Hanson has an ideal combination for hogs, carrying more than 500 head.

To look at the ranch at the close of the decade one would think it had been all plain sailing and that Hanson only had to sit back and watch it, but this is not a fact. Like his neighbors Mr. Hanson had his ups and downs, some of the latter coming pretty frequently for a time. After eight years, however, most of his troubles are past and he is beginning to know what it is to reap a harvest, after some discouraging years of sowing.

The stallion shown in the photograph is only a colt of 26 months, but has attained unusual size and strength. He is a Belgian, imported from the Middle West, and from him Hanson and his neighbors will have some thrifty colts.

The Most Contented Man

John Larson, four and one-half miles northwest of Imperial, is the most contented man I ever saw. Blessed with a good nature and satisfied temperament he has, by hard work and temperance, built himself a competence while still a young man and he looks out on life with smiling cheerfulness awaiting whatever may come with the most unruffled calm. He came to the Valley in 1902 with his friend Joseph Hanson, his nearest neighbor now, and took up 160 acres of land. He began by working out, but when he was able went on to his own place and reclaimed that. Content to let life come to him, he did not start out with great plans for making a fortune in a few months, but sowed barley and threshed it; made hay; bought a few brood mares; and waited for the big things to come gradually. Of course they will: they always do for those who do not hurry them.

When his own place was completely reclaimed he looked for other fields to conquer, leasing 160 nearby and finding himself well able to attend to the barley crops on both, with little expense. A bachelor, with the passion for neatness of a man-of-warsman, he has a home place scrupulously clean; so that one instinctively looks about for the woman who keeps it so. But Larson is responsible. His whole ranch is kept with the same attention to neatness and it may be one secret of his success, that he does the small things so well.

Larson Raises Fine Colts

The characteristic of faith in the future of the Valley is a big asset of many of the men who have made a success in the district. Without confidence in the ultimate possibilities of Imperial it would be hard for any man, whether a rancher or a business man, to see the future with a vision sufficiently large, but those who have this confidence have been enabled to make their own future assured as well. There are many examples of this in these stories of personal achievement: another of interest is that of Charles E. Guest, a trader, rancher, contractor, speculator, breeder of fine horses, broker, constructionist. Mr. Guest has been interested in the Valley since September, 1900, when he came in and saw with certainty what the future of the district was to be. Guest worked for wages that winter and for two or three after that, but in 1905 he brought his bride to the Valley and prepared to remain.

Guest is a natural trader, a sort of genial David Harum without David's peculiarities, and he has an unerring instinct that tends to lessen the usual natural chances a trader takes. He has bought, sold and traded everything from horses to ranches and while doing something thus to help those who were reclaiming the desert he has incidentally helped himself. In addition to this avocation, however, Guest has played a very important part in the harnessing of the waste places. For five years he has had a grading outfit in the field, turning the men and teams in the summer time, when there is little land grading done, to harvesting grain. With two complete "combines" (a great machine that cuts, heads, threshes and sacks the grain as it moves through the field) he has handled the crops of a good many ranches. In the summer of 1910 his machines covered more than 3,300 acres, and threshed more than 50,000 sacks of barley.

Has Threshed 50,000 Sacks of Barley this Year

At the same time he has owned ranches in the Valley, his plan being to take them in their raw state, level and crop them and then sell. It is a large question whether any person could make a competence for himself in less than ten years, starting on wages, and at the same time have a larger share in the general improvement of a great farming region on the desert than had Mr. Guest. The fact that he is totally oblivious to having done anything besides "the day's work" does not change the obligation of the future Imperial Valley to him and those like him.

It is a well known fact that there have been many years in which the close organization of the commission and general selling business and the almost unorganized condition of the farmers of the country have resulted in the annual loss of millions of dollars to the producer. In the Imperial Valley this condition has been felt and the farmers early began to discuss ways and means to systematize their selling to such an extent that they could make their produce pay them. However, it was not until August, 1909, that definite action was taken and the Imperial Valley Farmers' Union was brought into being.

This organization is truly named. Its purpose is to enable the producers to co-operate, both in buying and selling, but particularly the latter. They employ a business agent who has an office in Los Angeles, where most of the produce of the Valley goes for sale. They conduct their affairs on a purely business-like basis, although there are certain social possibilities in a well organized branch of the Union that commend it to a people living in a scattering country district. Another marked advantage the organization has is that its several lines of produce are handled by as many different branches of the Union, there being 12 divisions, concerning themselves, for instance, with dairying, with grain, with poultry, with fruit and so on. Thus men familiar with the details of any given branch of production are gathered together in a mutually helpful division of the Union, to the vast benefit of all.

The Imperial Valley Union is a part of a national organization. Its president during the first year was H. W. Morehouse, its secretary John McKinney, and the other directors J. E. Hodge, D. W. Tyler, J. H. Holland and G. M. Holloway. The Los Angeles sales manager is J. H. Tyler. Great good has already accrued to the members of the new organization and its progress and development are reported as exceedingly favorable.

The secretary, John McKinney is the pioneer rancher of the Mesquite Lake district, having gone there in 1902 when there was but one ranch being put in. Since that time this first ranch has changed hands so that Mr. McKinney is the real pioneer. He owns a handsome 160 acre ranch five miles northeast of Imperial where a large dairy engages his attention, when he is not at the office of the Farmers' Union.

CHAPTER XV

RESUME AND ONLOOK

The temptation to turn from these details of organization and growth and revel for awhile in the romance of this desert reclaimed is well nigh irresistible. Surrounded by the mysteries of Nature, by the picturesque tasks of reclamation, by the phenomena of a great metamorphosis, one has to shut himself in a very tight closet, indeed, to concentrate thought and effort on the sordid details of two-penny business transactions.

Were ten volumes available for this story of a marvelous decade instead of one there would be space for some feeble excursions into realms more entrancing. Then we might sit together at dawn on the Mesa land east of the Valley or on a sand hill on the west and look out across the desert, marveling at the insignificance of the work of reclamation compared with the stretches of sand still untrodden waste. We might watch the sun splash the eastern horizon in bold colors, lighting up the western mountains with fern-like sketches in purple bas-relief. We might turn our eyes to the southwest and south and watch a great city take shape beside an emerald lake, watch boats rock idly on its placid surface or great birds sail through the mists above it; might see houses tall as trees, and trees high as hills, and hills stretch up and out and assume awful proportions. There we might see the wraith of an ancient fortress take form, with black cannon protruding over massive battlements; then see the fortress change to a ship, then to a great hay-stack, then to a mushroom, then to a humble cot, then subside and disappear completely as the sun came higher and melted the illusions of fortress and lake and city and birds, and pierced through the ghosts of things, dissipating the mirage.

We might wander through several chapters, studying the strange animal and vegetable life we would find, wondering at the provisions of Nature that give all the wild plants little glossy leaves to combat the rays of the sun, and long roots to

The Runaway Colorado Did Great Damage in 1906 but Some Compensation is Afforded in the Serene Beauty of the Salton Sea, Which It Formed reach down where moisture may be found; noting the purple shadows cast by bush and stone on the staring ground; observing with increased comprehension that all the live things wear the habit of Nature herself and are scarcely to be distinguished from her dress when they lie quiet. We might take an excursion into some of the foothills surrounding the Valley and find there groves of majestic "Washington" palms, indigenous to this desert as is the cactus to the Arizona, the yucca to the Mojave, the Spanish needle to the New Mexican, and the Joshua tree to the Nevada deserts.

Returning again and going northward we might perch ourselves, like the giant pelicans, on a rocky headland of one of the little islands of the Salton sea, and amuse ourselves by trying to calculate how many different birds there are upon the land and water about us, and how many thousands of each. Assuredly we would never know but we might find it good fun to guess. We would see, if we chose the right time, thousands of brant, geese, ducks, snipe, sea-gulls, "hell-divers," silver herons, black herons, white herons, curlew, pelican, and mudhens, and we would take pleasure in dreaming for awhile of their various birth-places and the extent of their travels from summer to winter homes. Thanks to the rapacious pot-hunters who make frequent excursions during the hunting season to the Valley, the time may come soon when these sights will not be so common; it is too bad we cannot take the trip today.

In the Valley itself we could spend much time enjoyably watching the work of reclamation still going forward. With the contractor's crew we would be up at dawn moving in a gypsy-like procession across the desert, carrying everything with us that we needed for sustenance and work; we would pitch camp with the bunk tent and mess-wagon in the center, the feed racks for the stock a few yards off, and with a temporary reservoir on the nearest ditch. Then we would go out with a "log" or "railroad" iron 20 to 50 feet long and drag it broadside on across the ground to break the brush, would pile and burn the growths and would turn the scraper hands on to the hummocks. As Tom Yaeger, of Lee Dutcher's old crew, used to say: "It is a big game of seven-up, the Game being for Jack to drag the High places into the Low places." When the ground is rough-leveled with the scraper the border-lines are marked with two furrows five feet apart to each border, and the teams begin their monotonous course too and fro across the field, raising parallel banks of earth four rods or so apart to confine the water when a crop is in. A few days with a long drag, the buck-scraper, and the Fresno, and the ground is ready for ditches, crop and water.

The first crop will be barley if it is winter and corn if it is spring. The seed is put in with little ceremony and the minimum of expense, then the water is turned on. It would take a chapter to describe the sensation one experiences, after seeing the desert broken and harnessed, and after putting the dry seed into the ground, as one stands on a dusty ditch bank and watches water trickle down from the gate for the first time, possibly in a hundred centuries, on to the parched sand. It would take another chapter to follow the development of the ranch from those first beginnings, until, hog-fenced, cross-fenced, gated, cropped, tree-encircled and finished with a substantial home, it becomes a factor in the new Valley that is no longer a desert.

It would be interesting also to spend much time visiting the country and watching the changes going on there rapidly now, at the end of a decade, as the settlers accommodate themselves to their improved conditions. We would see new homes taking the place of rude cabins; roomy barns and milk sheds taking the place of weed-covered shades; better stock pasturing the fields; better animals drawing stronger wagons; newer implements breaking less stubborn soil; improved methods crowding aside antiquated ones; bold strides forward shown in every line and the circumstances surrounding living and work being bettered just as rapidly.

It would be interesting again to go into the towns and spend much time there, noting the remarkable resemblance between communities of five and ten years of existence and similar settlements with fifty years history behind them. There we would see modern stores, fresh stocks, places of amusement, libraries, churches, educational institutions ahead of the day, the modern conveniences of gas, electricity, sewerage systems and water plants par excellence. We would get in close touch with a spirit of progress and development that would teach us much: we might discover some things that would help us to help ourselves. We might even see some things, if we took time in our search, that we had not noticed before, even if the towns are familiar places to us and we have seen them grow. Certain it is that we would become more than ever imbued with the pride of province.

We would have, then, much leisure and space to devote to the growth of business and the increasing amount of capital available in this district for new enterprises and for the extension of old ones. We would devote ourselves, throughout several pages, perhaps, to the railroad facilities offered today, comparing them both with those of earlier times and those that are promised for the immediate future. We should find out as much as we might about the plans for lateral lines to be run as feeders to the main valley line of the Southern Pacific, which plans are already fixed. We might be astonished to find the volume of business done by the railroads in the territory today; it is certain we would be if we could learn what the officials of those carriers hope for the future.

So we might go on through many chapters, expanding and enlarging on the meager details we have found room for in this single tome. Since we cannot encompass the whole it were useless to mar the subject by making a sketch.

What, at the close of the decade, have we found concerning the possibilities of the district? Not much, to be sure; but something. The possibilities are unlimited: thus far we have touched their rim. More than $1,500,000 was the value of the products shipped from the Valley in 1909, these including barley, hogs, sheep and cattle, dairy products, honey, wool, asparagus, horses, hay, cotton, wheat, cantaloupes, alfalfa meal, grapes, eggs and poultry, including more than 10,000 turkeys, corn and small consignments of other produce. A diversified list, truly! In two years more it will include raisins, oranges and grape fruit, nursery stock, vegetables, dressed meats, probably (mirabile dictu!) ice, broom corn, gold bullion, hollow tile, rolled grain, corn meal, cotton-seed oil, patent chick food; and in five years, among products that can now be seen among the future certainties, eucalyptus for hardwood building material, pineapples, dates, canned goods of every sort, dried fruits, sugar, hemp, thoroughbred poultry, horses, swine, cattle and dogs, and wealthy retired ranchers! Ship us a carload of phonographs, a few bolts of silk and a company of play-actors and, so far as existence is concerned, you may leave us then with our half million settlers, cut off your railroad communication, tear down the telegraph wires, and whirl on your way!

In truth you would be the losers. Southern California needs the Imperial Valley: in a few years her people will be more or less dependent on it. The great demand for those staples of life the Valley is so luxuriant in makes the district indispensable, although not so much now as will be the case in ten years. Citrus and small fruits, vegetables, hay and grain are supplied the city of Los Angeles by the territory contiguous to her suburbs, but this territory is being more and more encroached on by building extensions. Moreover land is becoming so valuable because of its future possibilities that it is poor economy to buy it for agriculture. It is impossible to avoid the conclusion that the ultimate supply of food-stuffs must in a large measure come from the Imperial Valley. It is safe to prophesy that, in five years, ninety per cent of everything shipped from the Valley will go to the towns of Southern California or to the city of Los Angeles.

Whether that percentage is, at the same time, a large percentage of everything consumed in the way of produce in Southern California is quite another matter, but in the final analysis it depends a great deal more on the capacity of the Valley ranchers than on the possibilities of the district itself. In an earlier chapter the positive opinions of men in a position to prophesy that the farm unit here will eventually be the smallest anywhere in the United States, were quoted, and the trend in that direction at the end of the decade is very rapid, indeed. Small farm units mean intensive cultivation, scientific methods, and large margins of profit, but more important they mean a dense farming population.

The First Child Born in Imperial was Ruth Reid

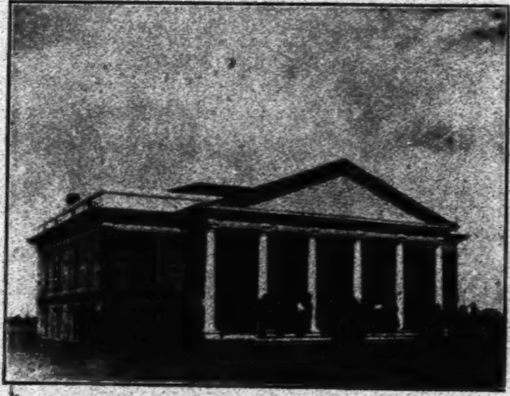
There has been a marked change in the sort of ranchers tilling the soil of the Valley from the first. The earliest comers were of three classes: poor men with nought but courage and strength and determination, wealthy men who took up land as a speculation, and adventurers who had little of either strength and courage or money, but who had vague notions of reaping more than they sowed. The shock of disillusionment in the cases of the latter class did much to hurt the district, for the man who desires something for nothing is the loudest and most persistent howler in the world when he does not get it. But it was well the community got that class out of its system at an early date and it has never reappeared. It is also well, perhaps, (although it may not have seemed so at the time) that the early days were days of testing, a trying in the fire, culminating in the flood seasons of 1905 and 1907. For the old law of the survival of the fit prevailed here as elsewhere, and the weak and faltering were crowded out, leaving the battle to the strong. The result is a strangely homogeneous but competent people working to one end. At a Sunday school convention held in 1908, at which 50 persons were present, a roll call by native states was suggested and carried out. In that handful of people there were represented 28 states and 5 nationalities!

Another feature of this population of ours is that a large number of eastern and city bred youths of some means and large faith are in our midst. Men such as Phil Brooks, G. W. Belden, Jeff Patton, Roy Breedlove, Clarence Gage, Alexander Ingram, Clarence Conant, George Peacock, Winthrop Pier, the Lyons Brothers, Guy Bear, Harry Cuthbertson, Sid Otter, (there are scores more) are the leaven that will lighten the whole lump, bringing their breadth of view and culture to touch elbows with the courage, determination and provincial loyalty of the plain farmer-folk. That there will grow up here from the union of these two forces (which will fuse so easily and certainly as time goes on) a civilization ahead of its time, making the Valley a good place in which to live just for its own sake, is certain.

A second irresistible force for community uplift is the excellent system that has grown under the watchful care of parents, like Enoch Arden, who

> "* * * Fixed a purpose evermore before his eyes
> To give their child a better bringing-up than his had been,
> Or hers * * * "

Not only in substantial and even imposing school buildings, but in character and ability of teachers, does the Valley excel many older communities. The important practical training needed by farmer boys to increase their efficiency is afforded in well arranged courses in scientific agriculture, while the girls are taught cooking and sewing, if they so elect, or may learn to garden under those who know the reasons why vegetables and flowers grow. Although this theoretical knowledge is worth little without practice the field for the latter is unlimited and is close at hand.


The Heber Agricultural College is a Monument

The work of these public institutions is paralleled and somewhat augmented by the work of a private school, the Heber Collegiate Institute, located at Heber, financed by aid of the Congregational Church of Southern California, and made possible by the generosity and broad-mindedness of Mrs. A. H. Heber, who thus goes on with the task her respected husband, the late Anthony H. Heber, set for himself. He aided in making the Valley fit to live in: Mrs. Heber is doing what she can to make citizens fit to live in the Valley. Prof. H. W. Morehouse, a gentleman of refinement, education and marked ability, is at the head of the teaching and administrative force of the school.

The growth of church movements in any community is of importance, for the time is passed, happily, when it is considered a mark of scholarship to scoff at the power of religion in moulding character, whether it be that of a person or of a community. The first church in the Imperial Valley was built by W. F. Holt, at his own suggestion, but with the financial backing of the Imperial Land Company. It was completed early in September, 1901, and on Sunday, September 29, was dedicated to use by Rev. J. C. Hay, of the Christian denomination, who was its pastor for more than a year. This pioneer church was unfortunately burned in the summer of 1909, but the spirit of churches did not die with the building for there had risen all about it, meantime, many church buildings and congregations. Practically every denomination of importance is represented in the Valley by some society at the close of the decade, and that most of them are practically or quite self-supporting speaks eloquently of the character of the communicants and the size of the congregations.

The social life of the community took form in the first year or two, as it will in any American settlement. The first recorded social event of any size was a general picnic on July 4, 1901. It was held at Cameron Lake, near the present site of Calexico, but dinner was eaten in the shade of the trees about the Salton gate at Sharp's Heading. It was a jolly affair. Fish for the dinner were caught in the canal and the 50 or 60 persons present had as much pleasure in the event as though it were in a less-out-of-the-way place.

The first dance of which record was kept was in September, 1901, in a mess wagon owned by W. W. Masten, then grading east of Calexico. It was exceedingly informal, but was the precursor of many events since that have made the blood of the young tingle and the blood of the staid and settled beat somewhat faster to watch.

These feeble beginnings of a social intercourse developed a strong feeling of comradeship in the pioneers and had a great influence for good.

The very last year of the decade saw a sudden turning of the tide in favor of the automobile and the number now owned in the Valley, compared with that number in the winter of 1908, is astonishing. There are two reasons why the automobile is welcome: one because it means modernity and insures progress, and the other because automobiles mean good roads. A motorist will not tolerate bad roads, as has been demonstrated elsewhere; moreover he is usually a man of some means and an aggressive character, else he could not summon the nerve to drive one of those go-devils to the dismay of every self-respecting farm horse in a belly-band. He gets good roads. No one thing is needed more in the Valley today.

The ranchers have still much to learn. The most important, when the question of water supply is settled once and for all, is how to remedy the evil of silt in the ditches. Cleaning canals and laterals costs annually enough to install a series of settling basins through the Valley to handle this unruly element. Ways and means must be found. In the meantime the irrigators must learn how to handle water. Ten years had taught only a few of them that they use too much water. Ten thousand years would be needed to teach some of them when to irrigate. They must learn, also, and must teach their water companies, how to measure water, fixing some standard which will be nearly absolute. Surprisingly little progress has been made in this regard.

El Centro's Grammar School is Typical

What to raise with profit is so easily answered here that it seems a superfluous question, since everything will grow. But within a few years there will be some formula by which it will be possible to determine the high efficiency of a ranch, given the quality of soil, location, slope, size and age. The success cotton growers met with in 1909 was phenomenal, all things considered, but it was not surprising in the light of early developments. In May, 1902, a small patch of cotton was planted near Calexico for experimental purposes and in 1903 samples of the product were sent to Washington, whence the seed had come. Concerning this Thomas H. Kearney, Physiologist of the Department of Agriculture, wrote (June 4, 1903) "Results obtained in ginning the cotton grown there last year showed that the fibre produced was very nearly, if not quite, the best Egyptian cotton grown in the United States, although we have experimented with this variety at more than a dozen different points in the South and Southwest." A most creditable organization of the cotton industry was perfected in the spring of 1910 and another staple was added to those of the Valley almost in a day. It would not be surprising if others were developed in the same abrupt manner.

Physicians the world over are just awakening to the health-giving potentialities of the reclaimed desert. It is not too much to believe that within another decade organization and publicity will combine to build here retreats for the sick, the tired, the nervous, that will be sought by hundreds. That the revivifying influence of pure, dry air; the tonic properties of the low altitude; and the nourishing elements of simple, natural food, will work wonders against any disease has been proven in the Valley too often already to require argument.

The petty misunderstandings and quarrels of the early days are being rapidly forgotten. Peace, industry, prosperity and a diligent search after the best means for promoting the welfare of all have taken the place of bickerings and a strong spirit of local pride is being fostered by circumstances and tendencies. The ruffianism of many frontier settlements has never had place here, and the cosmopolitan nature of the population precludes any possibility of community feuds. It is hard to interest a busy stranger in a family quarrel, and where would be the fun of a feud between less than fifty men to the side?

The onlook is hopeful. It will not be all plain sailing, but many of the rocks and shoals are passed and, like the careful mariners we were, we made charts of those difficult passages and will not fear them again. The unknown we do not dread, for one does not shrink from an open highway when one has come unscathed through a trackless forest. The desert is doomed! In a few short years there will be no arid land on the Colorado and those who know the tug of the call of the desert will have to seek it afar. "In order to make good, a desert must have sand, solitude and dreariness, with neither past, present, nor future."

We close these pages as we close the days of the first decade. What have we achieved? We have builded an empire in an unfit place. What are the acquisitions of conquering warriors compared to those of the pioneer who sets his cabin in the midst of a desolate waste and spreads a fruitful green about him? What is territorial expansion compared with desert reclamation? Let marines and soldiers add to the country's domain acquisition by discovery: our contribution has been acquisition by recovery. May these simple annals serve to perpetuate that succession of incidents and the labors of the men which together go to make up the true story of the first decade.

THE END.